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This index covers all technical items—papers, correspondence, reviews, etc.—that appeared in this periodical during 2021, and items from previous years that were commented upon or corrected in 2021. Departments and other items may also be covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the item title is found only under the primary entry in the Author Index.

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- Bell, Z.W.**, Announcing the New Associate Editor for Nuclear Power Instrumentation and Control; *TNS Jan. 2021 1*
- Bell, Z.W.**, IEEE Transactions on Nuclear Science 2021 Best Paper Award; *TNS Oct. 2021 2450-2451*
- Bellandi, A.**, Butkowski, L., Dursun, B., Eichler, A., Gumus, C., Kuntzsch, M., Nawaz, A., Pfeiffer, S., Schlarb, H., Schmidt, C., Zenker, K., and Branlard, J., Online Detuning Computation and Quench Detection for Superconducting Resonators; *TNS April 2021 385-393*
- Bellato, M.**, *see* Marini, F., *TNS Aug. 2021 1952-1960*
- Belli, F.**, *see* Astrain, M., *TNS Aug. 2021 2173-2178*
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- Beltrami, S.**, *see* Gerardin, S., *TNS May 2021 884-889*
- Beltrami, S.**, *see* Bagatin, M., *TNS May 2021 659-664*
- Belver, D.**, Boix, J., Calvo, E., Cuesta, C., Gallego-Ros, A., Gil-Botella, I., Jimenez, S., Latoria, C., Lux, T., Martin, I., Martinez, J.J., Palomares, C., Soto-Oton, J., and Verdugo, A., ProtoDUNE-DP Light Acquisition and Calibration Software; *TNS Sept. 2021 2334-2341*
- Bemporad, C.**, *see* Nicolo, D., *TNS Nov. 2021 2630-2636*
- Benabdesselam, M.**, *see* Morana, A., *TNS May 2021 906-912*
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- Bielejec, E.S.**, *see* Xiao, T.P., *TNS May 2021 581-587*
- Biereigel, S.**, Kulis, S., Leroux, P., Moreira, P., Kolpin, A., and Prinzie, J., Single-Event Effect Responses of Integrated Planar Inductors in 65-nm CMOS; *TNS Nov. 2021 2587-2597*
- Biesuz, N.V.**, *see* Sottocornola, S., *TNS Aug. 2021 2051-2058*
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- Black, D.**, *see* Cannon, M., *TNS May 2021 980-990*
- Black, J.**, *see* Tonigan, A.M., *TNS March 2021 305-311*
- Black, J.**, *see* Cannon, M., *TNS May 2021 980-990*
- Blanc, J.**, Achten, F., Alessi, A., Amezcua, A., Kuhnenn, J., Pastouret, A., Ricci, D., and Toccafondo, I., Characterization of Radiation-Resistant Multimode Optical Fibers for Large-Scale Procurement; *TNS July 2021 1407-1413*
- Blanc de Lanaute, N.**, *see* Amoyal, G., *TNS Feb. 2021 229-235*

- Blanch**, C., see Gonzalez-Iglesias, D., *TNS Feb. 2021* 78-91
- Blanchet**, T., Morana, A., Marin, E., Ouerdane, Y., Boukenter, A., and Girard, S., Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays; *TNS Aug. 2021* 1681-1687
- Bledsoe**, K.C., Hite, J., Jessee, M.A., and Lefebvre, J.P., Application of Markov Chain Monte Carlo Methods for Uncertainty Quantification in Inverse Transport Problems; *TNS Aug. 2021* 2210-2219
- Blomley**, E., see Wang, W., *TNS Aug. 2021* 1794-1800
- Blower**, S., Rech, P., Cazzaniga, C., Kastriotou, M., and Frost, C.D., Evaluating and Mitigating Neutrons Effects on COTS EdgeAI Accelerators; *TNS Aug. 2021* 1719-1726
- Boatella Polo**, C., see Vlagkoulis, V., *TNS Jan. 2021* 36-45
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- Bonaldo**, S., see Gorchichko, M., *TNS May 2021* 687-696
- Bonaldo**, S., see Ma, T., *TNS Aug. 2021* 1571-1578
- Bonini**, F., Begel, M., Chen, H., Chen, K., Liu, H., Matakias, D., Tang, S., Xu, H., Yin, W., and Zhivun, E., Multiplexing Firmware Prototypes for the Global Trigger Subsystem of ATLAS Phase-II Upgrade; *TNS Sept. 2021* 2421-2428
- Bonsall**, J.P., see Ryder, K.L., *TNS May 2021* 626-633
- Bonventre**, R., see Gioiosa, A., *TNS Aug. 2021* 1862-1868
- Boo**, J., Hammig, M.D., and Jeong, M., Row-Column Readout Method to Mitigate Radiographic-Image Blurring From Multipixel Events in a Coded-Aperture Imaging System; *TNS May 2021* 1175-1183
- Boone**, M., see Gao, B., *TNS June 2021* 1194-1206
- Boose**, S., see Aidala, C.A., *TNS Feb. 2021* 173-181
- Borghello**, G., Faccio, F., Terzo, G., Michelis, S., Costanzo, S., Koch, H.D., and Fleetwood, D.M., Effects of Bias and Temperature on the Dose-Rate Sensitivity of 65-nm CMOS Transistors; *TNS May 2021* 573-580
- Borghi**, G., see Mele, F., *TNS Dec. 2021* 2801-2809
- Borghi**, S., see Hennessy, K., *TNS Oct. 2021* 2472-2479
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- Breeding**, M., see Cannon, M., *TNS May 2021* 980-990
- Breeding**, M.L., see Wilcox, E.P., *TNS May 2021* 835-841
- Brewer**, R.M., Zhang, E.X., Gorchichko, M., Wang, P.F., Cox, J., Moran, S.L., Ball, D.R., Sierawski, B.D., Fleetwood, D.M., Schrimpf, R.D., Iyer, S.S., and Alles, M.L., Total Ionizing Dose Responses of 22-nm FDSOI and 14-nm Bulk FinFET Charge-Trap Transistors; *TNS May 2021* 677-686
- Brigatti**, A., see Marini, F., *TNS Aug. 2021* 1952-1960
- Briggl**, K., see Augustin, H., *TNS Aug. 2021* 1833-1840
- Brosi**, M., see Wang, W., *TNS Aug. 2021* 1794-1800
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- Buchner**, S.P., see Ryder, L.D., *TNS Oct. 2021* 2496-2507
- Budano**, A., see Marini, F., *TNS Aug. 2021* 1952-1960
- Budroweit**, J., see Coronetti, A., *TNS May 2021* 958-969
- Budtz-Jorgensen**, C., see Owe, S.H., *TNS Sept. 2021* 2440-2446
- Buonanno**, L., Vita, D.D., Carminati, M., and Fiorini, C., GAMMA: A 16-Channel Spectroscopic ASIC for SiPMs Readout With 84-dB Dynamic Range; *TNS Oct. 2021* 2559-2572
- Buonincontri**, G., see Leombruni, O., *TNS Aug. 2021* 2140-2145
- Burky**, J., see Sauveplane, J., *TNS Oct. 2021* 2488-2495
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- Cacace**, D., see Aidala, C.A., *TNS Feb. 2021* 173-181
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- Cai**, J.T., see Aharonian, F., *TNS Aug. 2021* 2257-2267
- Calabro**, D., see Sottocornola, S., *TNS Aug. 2021* 2051-2058
- Caldwell**, T.S., see Abgrall, N., *TNS March 2021* 359-367
- Calligaris**, L., Cascadan, A., Ardila-Perez, L.E., Casu, B., Costa, A.F.d., Shinoda, A.A., Ramalho, L.A., and Sander, O., OpenIPMC: A Free and Open-Source Intelligent Platform Management Controller Software; *TNS Aug. 2021* 2105-2112
- Calvetti**, M., see Sottocornola, S., *TNS Aug. 2021* 2051-2058
- Calvetti**, M., see Leombruni, O., *TNS Aug. 2021* 2140-2145
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- Campanella**, C., see Morana, A., *TNS May 2021* 906-912
- Campanella**, C., see Guttilla, A., *TNS Aug. 2021* 1556-1564
- Campanella**, C., Guttilla, A., Morana, A., De Michele, V., Muller, C., Aubry, M., Mady, F., Marin, E., Ouerdane, Y., Boukenter, A., Benabdesselam, M., and Girard, S., Photobleaching Effect on Infrared Radiation-Induced Attenuation of Germanosilicate Optical Fibers at MGy Dose Levels; *TNS Aug. 2021* 1688-1693
- Campbell**, C.M., see Abgrall, N., *TNS March 2021* 359-367
- Campbell**, M., see Egidos, N., *TNS April 2021* 434-446
- Campbell**, M., see Haag, D., *TNS May 2021* 1129-1134
- Campola**, M.J., Austin, R.A., Wilcox, E.P., Kim, H.S., Ladbury, R.L., Label, K.A., and Pellish, J.A., Single-Event Transient Case Study for System-Level Radiation Effects Analysis; *TNS May 2021* 1002-1007
- Cancelleri**, J.C., see Loveless, T.D., *TNS Aug. 2021* 1600-1606
- Cannon**, A., see Cannon, J.M., *TNS May 2021* 815-822

- Cannon, J.M.**, Loveless, T.D., Estrada, R., Boggs, R., Lawrence, S.P., Santos, G., McCurdy, M.W., Sternberg, A.L., Reising, D.R., Finzell, T., and Cannon, A., Electrical Measurement of Cell-to-Cell Variation of Critical Charge in SRAM and Sensitivity to Single-Event Upsets by Low-Energy Protons; *TNS May 2021 815-822*
- Cannon, M.**, Rodrigues, A., Black, D., Black, J., Bustamante, L., Breeding, M., Feinberg, B., Skouffis, M., Quinn, H., Clark, L.T., Brunhaver, J., Barnaby, H., McLain, M., Agarwal, S., and Marinella, M.J., Multiscale System Modeling of Single-Event-Induced Faults in Advanced Node Processors; *TNS May 2021 980-990*
- Cao, C.**, see Cao, P., *TNS Dec. 2021 2694-2701*
- Cao, J.**, see D'Amico, J.V., *TNS May 2021 823-829*
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- Cao, J.**, see Lu, J., *TNS Aug. 2021 1976-1983*
- Cao, L.R.**, see Pan, L., *TNS May 2021 1152-1160*
- Cao, P.**, see Yuan, J., *TNS Aug. 2021 1849-1854*
- Cao, P.**, Cao, C., and Gan, Q., A 3-D Neutron Distribution Reconstruction Method Based on the Off-Situ Measurement for Reactor; *TNS Dec. 2021 2694-2701*
- Cao, Q.**, see Wu, B., *TNS April 2021 470-476*
- Cao, S.**, Leng, Y., Yuan, R., and Chen, J., Optimization of Beam Arrival and Flight Time Measurement System Based on Cavity Monitors at the SXFEL; *TNS Jan. 2021 2-8*
- Cao, X.**, see Wang, L., *TNS March 2021 338-345*
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- Cao, Z.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Caroli, E.**, see Moita, M., *TNS Nov. 2021 2655-2660*
- Caron, P.**, Inguibert, C., Artola, L., Bezerra, F., and Ecoffet, R., Role of Electron-Induced Coulomb Interactions to the Total SEU Rate During Earth and JUICE Missions; *TNS Aug. 2021 1607-1612*
- Caron, P.**, see Inguibert, C., *TNS Aug. 2021 1754-1763*
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- Carra, P.**, see Morrocchi, M., *TNS May 2021 1161-1168*
- Carrel, F.**, see Amoyal, G., *TNS Feb. 2021 229-235*
- Carrío, F.**, Design of the Compact Processing Module for the ATLAS Tile Calorimeter; *TNS Aug. 2021 1944-1951*
- Carson, M.**, Woods, W., Reynolds, S., Wetzel, M., Morton, A.J., Hecht, A.A., Osinski, M., and Teuscher, C., Application of a Simple, Spiking, Locally Competitive Algorithm to Radionuclide Identification; *TNS March 2021 292-304*
- Carstens, T.**, see Ladbury, R., *TNS Aug. 2021 1736-1745*
- Caruso, R.**, see Marini, F., *TNS Aug. 2021 1952-1960*
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- Cascadan, A.**, see Calligaris, L., *TNS Aug. 2021 2105-2112*
- Caselle, M.**, see Wang, W., *TNS Aug. 2021 1794-1800*
- Casey, M.C.**, Stansberry, S.D., Seidleck, C.M., Maharrey, J.A., Gamboa, D., Pellish, J.A., and Label, K.A., Single-Event Response of 22-nm Fully Depleted Silicon-on-Insulator Static Random Access Memory; *TNS April 2021 402-409*
- Casey, M.C.**, see Wilcox, E.P., *TNS May 2021 835-841*
- Caspers, F.**, see Zhu, G., *TNS Jan. 2021 9-20*
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- Cazzaniga, C.**, see Coronetti, A., *TNS May 2021 958-969*
- Cazzaniga, C.**, see Coronetti, A., *TNS May 2021 937-948*
- Cazzaniga, C.**, Raspino, D., Sykora, G.J., and Frost, C.D., Dosimetry of Thermal Neutron Beamlines at a Pulsed Spallation Source for Application to the Irradiation of Microelectronics; *TNS May 2021 921-927*
- Cazzaniga, C.**, see Blower, S., *TNS Aug. 2021 1719-1726*
- Cazzaniga, C.**, see Haran, A., *TNS Nov. 2021 2598-2608*
- Cecchetto, M.**, Alia, R.G., Wrobel, F., Coronetti, A., Bilko, K., Lucsanyi, D., Fiore, S., Bazzano, G., Pirovano, E., and Nolte, R., 0.1–10 MeV Neutron Soft Error Rate in Accelerator and Atmospheric Environments; *TNS May 2021 873-883*
- Cecchetto, M.**, see Coronetti, A., *TNS May 2021 937-948*
- Cei, F.**, see Nicolo, D., *TNS Nov. 2021 2630-2636*
- Cen, Y.**, see Fan, H., *TNS May 2021 1094-1102*
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- Ceribella, G.**, see Dazzi, F., *TNS July 2021 1473-1486*
- Cerutti, F.**, see Coronetti, A., *TNS Aug. 2021 1613-1622*
- Cha, H.**, Leem, S., Cho, K., Kang, C., Bae, S., Yu, B., Yeom, J., Lee, H., and Lee, K., Simulation Study on the Effect of Constant Hole Length of Curved Diverging Collimators for Radiation Monitoring Systems; *TNS May 2021 1135-1143*
- Chabot, J.P.**, see Pritchard, K., *TNS July 2021 1519-1527*
- Chajecki, Z.**, see Teh, F.C.E., *TNS Aug. 2021 2294-2300*
- Chan, W.M.**, see Khai, B.T., *TNS March 2021 368-378*
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- Chang, L.J.**, see Alamdar, M., *TNS May 2021 665-670*
- Chang, W.**, see Takahashi, T., *TNS Aug. 2021 1907-1911*
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- Chen, H.**, see Augustin, H., *TNS Aug. 2021 1833-1840*
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- Chen, J.**, see Andjelkovic, M., *TNS Aug. 2021 1772-1781*
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- Chen, L.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Chen, Q.**, see Zhu, B., *TNS June 2021 1309-1318*
- Chen, Q.H.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Chen, S.**, Wei, T., Chen, N., and He, X., High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection; *TNS Aug. 2021 2268-2278*
- Chen, S.H.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Chen, S.Z.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Chen, T.L.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*

- Chen, W.**, see Luo, Y., *TNS May 2021 1111-1119*
- Chen, X.**, see Li, L., *TNS Aug. 2021 2220-2231*
- Chen, X.**, Song, Z., Lu, Y., Ma, Y., Hou, L., and Han, H., Improvement on the Temporal Response of CZT γ -Ray Detector by Infrared Illumination; *TNS Oct. 2021 2533-2538*
- Chen, X.L.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Chen, Y.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Chen, Y.**, see Li, H., *TNS Nov. 2021 2624-2629*
- Chen, Z.**, see Shy, D., *TNS Feb. 2021 211-219*
- Chen, Z.**, Yue, S., Peng, C., Zhang, Z., Liu, C., Wang, L., Huang, Y., Huang, Y., He, Y., Zhong, X., and Lei, Z., Hydrogen-Related Recovery Effect of AlGaIn/GaN High-Electron-Mobility Transistors Irradiated by High-Fluence Protons; *TNS Feb. 2021 118-123*
- Chen, Z.**, Zhang, C., Wu, M., Wang, T., Zeng, Y., Wan, X., Jin, H., Xu, J., and Tang, M., Analysis and Mitigation of Single-Event Gate Rupture in VDMOS With Termination Structure; *TNS June 2021 1272-1278*
- Chen-Mayer, H.H.**, see Turkoglu, D.J., *TNS July 2021 1505-1510*
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- Chiesa, D.**, see Marini, F., *TNS Aug. 2021 1952-1960*
- Chilo, J.**, see Argume, A., *TNS Aug. 2021 1933-1936*
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- Choi, Y.**, see Jeon, S., *TNS Sept. 2021 2392-2399*
- Choudhury, S.**, Tau Identification With Deep Neural Networks at the CMS Experiment; *TNS Aug. 2021 2194-2200*
- Choudhury, S.**, Performance of the High-Level Trigger System at CMS in LHC Run-2; *TNS Aug. 2021 2035-2042*
- Christofferson, C.D.**, see Abgrall, N., *TNS March 2021 359-367*
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- Chu, P.**, see Abgrall, N., *TNS March 2021 359-367*
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- Cid, E.L.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
- Ciobanu, M.**, Marghitu, O., Constantinescu, V., Herrmann, N., Andersson, H., Wieser, M., Flemming, H., Deppe, H., Lochner, S., Fruhauf, J., Deppner, I., and Loizeau, P.A., New Models of PADI, an Ultrafast Preamplifier-Discriminator ASIC for Time-of-Flight Measurements; *TNS June 2021 1325-1333*
- Citraro, S.**, see Barbanera, M., *TNS May 2021 1144-1151*
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- Clatworthy, T.**, see Morand, S., *TNS June 2021 1279-1285*
- Claus, L.D.**, see Rice, W.C., *TNS May 2021 890-896*
- Clement, A.**, Saurel, N., Perrin, G., and Gombert, N., Bayesian Approach for Multigamma Radionuclide Quantification Applied on Weakly Attenuating Nuclear Waste Drums; *TNS Sept. 2021 2342-2349*
- Clemente, J.A.**, Hubert, G., Rezaei, M., Franco, F.J., and Mecha, H., Impact of the Bitcell Topology on the Multiple-Cell Upsets Observed in VLSI Nanoscale SRAMs; *TNS Sept. 2021 2383-2391*
- Clementi, C.**, see Marini, F., *TNS Aug. 2021 1952-1960*
- Clerbaux, B.**, Hang, S., Petitjean, P., Wang, P., and Yang, Y., Automatic Test System of the Back-End Card for the JUNO Experiment; *TNS Aug. 2021 2121-2126*
- Clerbaux, B.**, Molla, M.C., Petitjean, P., Xu, Y., and Yang, Y., Study of Using Machine Learning for Level 1 Trigger Decision in JUNO Experiment; *TNS Aug. 2021 2187-2193*
- Coaguila, R.**, see Argume, A., *TNS Aug. 2021 1933-1936*
- Cocchetti, F.**, see Ngom, C., *TNS Aug. 2021 1642-1650*
- Coco, V.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
- Coi, O.**, Pendina, G.D., Sousa, R., Adrianjohany, N., Dangla, D., Ecoffet, R., and Torres, L., Heavy-Ion Irradiation Effects on Advanced Perpendicular Anisotropy Spin-Transfer Torque Magnetic Tunnel Junction; *TNS May 2021 588-596*
- Coi, O.**, Adrianjohany, N., Pendina, G.D., Dangla, D., Ecoffet, R., Dieny, B., and Torres, L., SEU Mechanisms in Spintronic Devices: Critical Parameters and Basic Effects; *TNS Aug. 2021 1533-1541*
- Colin, T.**, see Virmondois, C., *TNS May 2021 770-776*
- Collado, J.**, see Karkour, N., *TNS Aug. 2021 2005-2011*
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- Coronetti, A.**, see Soderstrom, D., *TNS May 2021 716-723*
- Coronetti, A.**, see Martinella, C., *TNS May 2021 634-641*
- Coronetti, A.**, see Cecchetto, M., *TNS May 2021 873-883*
- Coronetti, A.**, see Wang, J., *TNS May 2021 913-920*
- Coronetti, A.**, Alia, R.G., Budroweit, J., Rajkowski, T., Costa Lopes, I.D., Niskanen, K., Soderstrom, D., Cazzaniga, C., Ferraro, R., Danzeca, S., Mekki, J., Manni, F., Dangla, D., Virmondois, C., Kerboub, N., Koelpin, A., Saigne, F., Wang, P., Pouget, V., Touboul, A., Javanainen, A., Kettunen, H., and Germanicus, R.C., Radiation Hardness Assurance Through System-Level Testing: Risk Acceptance, Facility Requirements, Test Methodology, and Data Exploitation; *TNS May 2021 958-969*
- Coronetti, A.**, Alia, R.G., Wang, J., Tali, M., Cecchetto, M., Cazzaniga, C., Javanainen, A., Saigne, F., and Leroux, P., Assessment of Proton Direct Ionization for the Radiation Hardness Assurance of Deep Submicron SRAMs Used in Space Applications; *TNS May 2021 937-948*
- Coronetti, A.**, Alia, R.G., Cerutti, F., Hajdas, W., Soderstrom, D., Javanainen, A., and Saigne, F., The Pion Single-Event Latch-Up Cross Section Enhancement: Mechanisms and Consequences for Accelerator Hardness Assurance; *TNS Aug. 2021 1613-1622*
- Corrodi, S.**, see Augustin, H., *TNS Aug. 2021 1833-1840*
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- Cressler, J.D.**, see Teng, J.W., *TNS May 2021 949-957*
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- Cui, H.**, see Li, M., *TNS Aug. 2021 2309-2314*
- Cui, J.**, see Zheng, Q., *TNS July 2021 1423-1429*
- Cui, J.**, see Zheng, Q., *TNS Oct. 2021 2516-2523*
- Cui, S.W.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*

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D

D'Amico, J.V., Ball, D.R., Cao, J., Xu, L., Rathore, M., Wen, S., Fung, R., Narasimham, B., Kauppila, J.S., Massengill, L.W., and Bhuva, B.L., Single-Event Upsets in a 7-nm Bulk FinFET Technology With Analysis of Threshold Voltage Dependence; *TNS May 2021 823-829*
 Dai, B.Z., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
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 Dayani, P., Orr, N., Saran, V., Hu, N., Krishnaswamy, S., Thomopoulos, A., Wang, E., Bae, J., Zhang, E., McPherson, D., Menke, J., Moran, A., Quiter, B., Yang, A., and Vetter, K., Immersive Operation of a Semi-Autonomous Aerial Platform for Detecting and Mapping Radiation; *TNS Dec. 2021 2702-2710*
 Dazzi, F., Schweizer, T., Ceribella, G., Corti, D., Dettlaff, A., Garcia, J.R., Hafner, D., Herranz, D., Lopez-Moya, M., Mariotti, M., Maier, R., Metz, S., Mirzoyan, R., Nakajima, D., Saito, T., Shayduk, M., Sitarek, J., Strom, D., Teshima, M., Tran, S., and Will, M., The Stereoscopic Analog Trigger of the MAGIC Telescopes; *TNS July 2021 1473-1486*
 de Boissac, C.L., Abouzeid, F., Malherbe, V., Thery, T., Gasiot, G., Daveau, J., Roche, P., and Autran, J., Single-Event Transient Space Characterizations in 28-nm UTBB SOI Technologies and Below; *TNS Jan. 2021 21-26*
 de Boissac, C.L., *see* Abouzeid, F., *TNS May 2021 1040-1044*
 de Boissac, C.L., Abouzeid, F., Malherbe, V., Gasiot, G., Roche, P., and Autran, J., Influence of Supply Voltage and Body Biasing on Single-Event Upsets and Single-Event Transients in UTBB FD-SOI; *TNS May 2021 850-856*
 de Bruyn, K., *see* Hennessy, K., *TNS Oct. 2021 2472-2479*
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 Dedolli, I., *see* Mele, F., *TNS Dec. 2021 2801-2809*
 Dekkers, S., Nakazawa, Y., Fujii, Y., Yoshida, H., Wong, T.S., Ueno, K., and Nash, J., Radiation Tolerance of Online Trigger System for COMET Phase-I; *TNS Aug. 2021 2020-2027*
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 Deng, Q., *see* Huang, L., *TNS Aug. 2021 2239-2248*
 Deng, S., *see* Wang, L., *TNS March 2021 338-345*
 Deng, W., Song, Z., Huang, G., De Lentdecker, G., Robert, F., and Yang, Y., Iterative Retina for High Track Multiplicity in a Barrel-Shaped Tracker and High Magnetic Field; *TNS Aug. 2021 1937-1943*
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 Detwiler, J.A., *see* Abgrall, N., *TNS March 2021 359-367*
 Dewitte, H., Paillet, P., Rizzolo, S., Le Roch, A., Marcandella, C., and Goiffon, V., Ultra-High Total Ionizing Dose Effects on MOSFETs for Analog Applications; *TNS May 2021 697-706*
 Dhanasekaran, A., *see* Rajakrishna, K., *TNS June 2021 1286-1295*
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 Ding, J., Zhang, E.X., Li, K., Luo, X., Gorchichko, M., and Fleetwood, D.M., Aging Effects and Latent Interface-Trap Buildup in MOS Transistors; *TNS Dec. 2021 2724-2735*
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 Ding, L., *see* Luo, Y., *TNS May 2021 1111-1119*
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 Ding, L., *see* Ju, A., *TNS Oct. 2021 2508-2515*
 Ding, X., *see* Marini, F., *TNS Aug. 2021 1952-1960*
 Ding, Y., Li, Z., Wei, W., Zhang, J., Li, H., Zhang, Y., Ji, X., Li, Q., Sheng, W., Liu, P., Chen, Y., and Zhu, K., The Study of Calibration for the Hybrid Pixel Detector With Single Photon Counting in HEPS-BPIX; *TNS Aug. 2021 2088-2095*
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 Dittmeier, S., *see* Augustin, H., *TNS Aug. 2021 1833-1840*
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 Dong, J., *see* Pan, Z., *TNS Sept. 2021 2407-2413*
 Dong, L., *see* Wan, P., *TNS June 2021 1265-1271*
 Dong, P., Yan, X., Zhang, L., Jin, S., Dai, F., Zhang, Y., Cui, Y., Yu, X., and Huang, B., Relating Gain Degradation to Defects Production in Neutron-Irradiated 4H-SiC Transistors; *TNS March 2021 312-317*
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 Dong, Z., Li, J., Li, B., Guo, Z., Huang, X., and Zhang, Z., Proportional-Integral Extended State Observer for Monitoring Nuclear Reactors; *TNS June 2021 1207-1221*
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Esposito, M.G., Manuel, J.E., Privat, A., Xiao, T.P., Garland, D., Bielejec, E., Vizkelethy, G., Dickerson, J., Brunhaver, J., Talin, A.A., Ashby, D., King, M.P., Barnaby, H., McLain, M., and Marinella, M.J., Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose; *TNS May 2021 724-732*
Esquembri, S., Nieto, J., Carpeno, A., Ruiz, M., Astrain, M., Costa, V., and de Gracia, A., Application of Heterogeneous Computing Techniques for the Development of an Image-Based Hot Spot Detection System Using MTCA; *TNS Aug. 2021 2151-2158*
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Fan, H., Feng, L., Cen, Y., Fang, Z., Li, Y., Qi, X., Feng, Q., Gatti, U., Wei, Q., and Heidari, H., Fast-Transient Radiation-Hardened Low-Dropout Voltage Regulator for Space Applications; *TNS May 2021 1094-1102*
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- Fleetwood, D.M.**, O'Hara, A., Mayer, T.S., Melloch, M.R., and Pantelides, S.T., Defect and Impurity-Complex Deposition During Electron-Beam Irradiation of GaAs; *TNS Aug. 2021 1548-1555*
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- Flemming, H.**, see Ciobanu, M., *TNS June 2021 1325-1333*
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- Fobar, D.**, Phillips, L., Wilhelm, A., and Chapman, P., Considerations for Training an Artificial Neural Network for Particle Type Identification; *TNS Sept. 2021 2350-2357*
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- Frolov, V.**, Huber, S., Konorov, I., Kveton, A., Levit, D., Novy, J., Steffen, D., Veit, B.M., Virius, M., Zemko, M., and Paul, S., Data Acquisition System for the COMPASS+/ AMBER Experiment; *TNS Aug. 2021 1891-1898*
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- Fu, X.**, Yin, Z., Fong, K., Zhang, T., Wei, J., Ji, B., Guan, F., Lu, X., and Wang, Y., LLRF Controller for High Current Cyclotron-Based BNCT System; *TNS Oct. 2021 2452-2458*
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- G**
- Gabella, G.**, Goldblum, B.L., Laplace, T.A., Manfredi, J.J., Gordon, J., Sweger, Z.W., and Bourret, E., Neutron Response of the EJ-254 Boron-Loaded Plastic Scintillator; *TNS Jan. 2021 46-53*
- Gaillard, R.**, see Martinella, C., *TNS May 2021 634-641*
- Gaillardin, M.**, Lambert, D., Aubert, D., Raine, M., Marcandella, C., Assailit, G., Auriel, G., Martinez, M., Duhamel, O., Ribiere, M., Rostand, N., Lagutere, T., Paillet, P., Delbos, C., Poujols, D., and Ritter, S., Investigations on Spectral Photon Radiation Sources to Perform TID Experiments in Micro- and Nano-Electronic Devices; *TNS May 2021 928-936*
- Gaillardin, M.**, see Lambert, D., *TNS May 2021 991-1001*
- Gaioni, L.**, Manghisoni, M., Ratti, L., Re, V., Riceputi, E., Traversi, G., Dellacasa, G., Demaria, N., Garbolino, S., and Rotondo, F., Optimization of the 65-nm CMOS Linear Front-End Circuit for the CMS Pixel Readout at the HL-LHC; *TNS Nov. 2021 2682-2692*
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- Gandola, M.**, see Mele, F., *TNS March 2021 379-383*
- Gandola, M.**, see Mele, F., *TNS Dec. 2021 2801-2809*
- Gao, B.**, Aelterman, J., Laforce, B., Van Hoorebeke, L., Vincze, L., and Boone, M., Self-Absorption Correction in X-Ray Fluorescence-Computed Tomography With Deep Convolutional Neural Network; *TNS June 2021 1194-1206*
- Gao, B.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Gao, Q.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Gao, R.**, Liu, L., Ruan, J., Jin, P., Ouyang, X., Zhou, L., Li, Y., Zhang, S., Zhao, K., and Ouyang, X., Systematic Analysis of Reliability of Large-Area 4H-SiC Charged Particle Detector Under Harsh He Ion Irradiation; *TNS May 2021 1169-1174*
- Gao, W.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Gao, X.**, Looker, Q., Webb, T.J., Depriest, K.R., and Ulmen, B., Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator; *TNS July 2021 1454-1464*
- Garavelli, B.**, see Sammartini, M., *TNS Jan. 2021 70-75*
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- Garg, P.**, see Shulga, E., *TNS Jan. 2021 59-69*
- Garland, D.**, see Esposito, M.G., *TNS May 2021 724-732*
- Garola, A.R.**, Manduchi, G., Gottardo, M., Cavazzana, R., Recchia, M., Taliercio, C., and Luchetta, A., A Zynq-Based Flexible ADC Architecture Combining Real-Time Data Streaming and Transient Recording; *TNS Feb. 2021 245-249*
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- Geng, X.**, Xia, X., Cui, X., Huang, H., Liang, X., Yan, D., Tian, K., Chen, L., Yan, X., Long, Z., Niu, M., Meng, X., and Liang, H., Enhanced Energy Resolution of GaN-on-Sapphire p-i-n Alpha-Particle Detector With Isoelectronic Al-Doped i-GaN Layer; *TNS Aug. 2021 2301-2308*
- Gentsos, C.**, see Sottocornola, S., *TNS Aug. 2021 2051-2058*
- Gerardin, S.**, Bagatin, M., Paccagnella, A., Beltrami, S., Costantino, A., Santin, G., Pesce, A., Ferlet-Cavrois, V., and Voss, K., A Heavy-Ion Beam Monitor Based on 3-D NAND Flash Memories; *TNS May 2021 884-889*
- Gerardin, S.**, see Bagatin, M., *TNS May 2021 659-664*
- Gerardin, S.**, see Ma, T., *TNS Aug. 2021 1571-1578*
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- Gioiosa, A.**, Bonventre, R., Donati, S., Flumerfelt, E., Horton-Smith, G., Morescalchi, L., O'Dell, V., Pedreschi, E., Pezzullo, G., Spinella, F., Uplegger, L., and Rivera, R.A., Prototype Data Acquisition and Slow Control Systems for the Mu2e Experiment; *TNS Aug. 2021 1862-1868*
- Giordano, R.**, Lai, Y., Korpar, S., Pestotnik, R., Lozar, A., Santelj, L., Shoji, M., and Nishida, S., Frame-Level Intermodular Configuration Scrubbing of On-Detector FPGAs for the ARICH at Belle II; *TNS Dec. 2021 2810-2817*
- Giovanetti, G.K.**, see Abgrall, N., *TNS March 2021 359-367*
- Girard, S.**, see Morana, A., *TNS May 2021 906-912*
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- Gnawali, K.P.**, Quinn, H.M., and Tragoudas, S., Developing Benchmarks for Radiation Testing of Microcontroller Arithmetic Units Using ATPG; *TNS May 2021 857-864*
- Gobbini, M.**, see Rigoni Garola, A., *TNS Aug. 2021 2165-2172*
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- Gonzalez, V.**, see Karkour, N., *TNS Aug. 2021 2005-2011*
- Gonzalez-Iglesias, D.**, Esperante, D., Gimeno, B., Boronat, M., Blanch, C., Fuster-Martinez, N., Martinez-Reviriego, P., Martin-Luna, P., and Fuster, J., Analytical RF Pulse Heating Analysis for High Gradient Accelerating Structures; *TNS Feb. 2021 78-91*
- Gorbunov, M.S.**, see Balbekov, A.O., *TNS Aug. 2021 1712-1718*
- Gorchichko, M.**, see Brewer, R.M., *TNS May 2021 677-686*
- Gorchichko, M.**, see Li, K., *TNS May 2021 740-747*
- Gorchichko, M.**, Zhang, E.X., Wang, P., Bonaldo, S., Schrimpf, R.D., Reed, R.A., Linten, D., Mitard, J., and Fleetwood, D.M., Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors; *TNS May 2021 687-696*
- Gorchichko, M.**, see Ding, J., *TNS Dec. 2021 2724-2735*
- Gordon, J.**, see Gabella, G., *TNS Jan. 2021 46-53*
- Gostilo, V.**, see Sokolov, A., *TNS Jan. 2021 54-58*
- Gottardo, M.**, see Garola, A.R., *TNS Feb. 2021 245-249*
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- Gou, Q.B.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Gou, Y.**, see Guo, L., *TNS Dec. 2021 2711-2716*
- Goulart, P.J.**, see Kempf, I., *TNS March 2021 258-269*
- Graafsma, H.**, see Porro, M., *TNS June 2021 1334-1350*
- Grace, C.R.**, Fong, E., Gnani, D., Stezelberger, T., and Denes, P., A 24-Channel Digitizer With a JESD204B-Compliant Serial Interface for High-Speed Detectors; *TNS April 2021 426-433*
- Grande, A.**, see Porro, M., *TNS June 2021 1334-1350*
- Grassi, M.**, see Marini, F., *TNS Aug. 2021 1952-1960*
- Grassi, M.**, see Nicolo, D., *TNS Nov. 2021 2630-2636*
- Grassi, M.**, see Mele, F., *TNS Dec. 2021 2801-2809*
- Grau, N.**, see Aidala, C.A., *TNS Feb. 2021 173-181*
- Grave, X.**, see Karkour, N., *TNS Aug. 2021 2005-2011*
- Graz, C.S.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
- Green, M.P.**, see Abgrall, N., *TNS March 2021 359-367*
- Grichine, V.M.**, Geant4 Nucleon Momentum Generator; *TNS July 2021 1362-1366*
- Grossner, U.**, see Martinella, C., *TNS May 2021 634-641*
- Grudiev, A.**, see Wei, Y., *TNS May 2021 1062-1071*
- Gruner, S.M.**, see Shanks, K.S., *TNS Dec. 2021 2753-2761*
- Gruszeko, J.**, see Abgrall, N., *TNS March 2021 359-367*
- Gu, J.**, Zhao, L., Cao, Z., Qin, J., Jiang, Z., Fan, Y., Xu, H., Liu, S., An, Q., Yan, Y., and Yu, P., Prototype of Clock and Timing Distribution and Synchronization Electronics for SHINE; *TNS Aug. 2021 2113-2120*
- Gu, J.L.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Gu, M.H.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Guan, F.**, see Fu, X., *TNS Oct. 2021 2452-2458*
- Guatelli, S.**, see Peracchi, S., *TNS May 2021 897-905*
- Guazzoni, C.**, see Porro, M., *TNS June 2021 1334-1350*
- Guerre, F.**, see Sauveplane, J., *TNS Oct. 2021 2488-2495*
- Guglielmo, G.D.**, Fahim, F., Herwig, C., Valentin, M.B., Duarte, J., Gingu, C., Harris, P., Hirschauer, J., Kwok, M., Loncar, V., Luo, Y., Miranda, L., Ngadiuba, J., Noonan, D., Ogreneci-Memik, S., Pierini, M., Summers, S., and Tran, N., A Reconfigurable Neural Network ASIC for Detector Front-End Data Compression at the HL-LHC; *TNS Aug. 2021 2179-2186*
- Guillaume, N.**, see Vogel, T., *TNS Aug. 2021 1542-1547*
- Guinn, I.S.**, see Abgrall, N., *TNS March 2021 359-367*
- Guisepe, V.E.**, see Abgrall, N., *TNS March 2021 359-367*
- Gumus, C.**, see Bellandi, A., *TNS April 2021 385-393*
- Gumus, C.**, see Zenker, K., *TNS Sept. 2021 2326-2333*
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- Guo, H.**, see Hu, Q., *TNS Aug. 2021 2101-2104*
- Guo, H.**, see Yan, M., *TNS Aug. 2021 2096-2100*
- Guo, H.**, see Ma, L., *TNS Oct. 2021 2459-2463*
- Guo, H.**, see Ju, A., *TNS Oct. 2021 2508-2515*
- Guo, J.**, see Yang, H., *TNS Dec. 2021 2794-2800*
- Guo, J.G.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Guo, L.**, Chen, P., Li, L., Gou, Y., Liu, H., Liu, Z., Xin, L., and Tian, J., Numerical Simulation Study on Gain Nonlinearity of Microchannel Plate in Photomultiplier Tube; *TNS Dec. 2021 2711-2716*
- Guo, Q.**, see Zheng, Q., *TNS July 2021 1423-1429*
- Guo, Q.**, see Ren, Z., *TNS Aug. 2021 1565-1570*
- Guo, Q.**, see Zheng, Q., *TNS Oct. 2021 2516-2523*
- Guo, X.L.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Guo, Y.**, see Liu, J., *TNS Dec. 2021 2717-2723*
- Guo, Y.Q.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Guo, Y.Y.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Guo, Z.**, see Dong, Z., *TNS June 2021 1207-1221*
- Guttilla, A.**, Campanella, C., Benabdesselam, M., Morana, A., Boukenter, A., Ouerdane, Y., Girard, S., and Mady, F., Investigation by Thermoluminescence of the Ionization and Annealing Processes in Irradiated Ge-Doped Silica Fiber Preform; *TNS Aug. 2021 1556-1564*
- Guttilla, A.**, see Campanella, C., *TNS Aug. 2021 1688-1693*

H

- Haag, D.**, Schmidt, S., Hufschmidt, P., Eberle, F., Michel, T., Anton, G., Hupe, O., Roth, J., Fuhg, C., Zutz, H., Behrens, R., Campbell, M., Llopart, X., Ballabriga, R., Tlustos, L., and Wong, W., Personal Dosimetry in Contin-

- uous Photon Radiation Fields With the Dosepix Detector; *TNS May 2021* 1129-1134
- Haas, S.**, see Spiwoks, R., *TNS Aug. 2021* 2127-2131
- Habert, R.**, see Kerboub, N., *TNS Aug. 2021* 1782-1787
- Hadad, N.**, see Pritchard, K., *TNS July 2021* 1519-1527
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- Haefner, A.**, see Hecla, J., *TNS Oct. 2021* 2539-2549
- Hafner, D.**, see Dazzi, F., *TNS July 2021* 1473-1486
- Haggerty, J.S.**, see Aidala, C.A., *TNS Feb. 2021* 173-181
- Haihang, Y.**, Qianli, L., Changjiang, L., Wei, J., Xuechun, Y., Mei, Y., Rihua, M., and He, F., Comparison of Photoluminescence and Scintillation Properties Between Lu₂O₃:Eu Single Crystal and Transparent Ceramic; *TNS April 2021* 477-482
- Hajdas, W.**, see Coronetti, A., *TNS Aug. 2021* 1613-1622
- Hales, J.**, see Tzintzarov, G.N., *TNS May 2021* 785-792
- Hales, J.M.**, see Ryder, K.L., *TNS May 2021* 626-633
- Hales, J.M.**, Khachatrian, A., Buchner, S., Ildefonso, A., Monahan, D.M., Lalumondiere, S.D., and Mcmorrow, D., Mapping the Spatial Dependence of Charge-Collection Efficiency in Semiconductor Devices Using Pulsed-Laser Testing; *TNS May 2021* 617-625
- Hales, J.M.**, see Ryder, L.D., *TNS Oct. 2021* 2496-2507
- Hamada, E.**, Fujii, Y., Igarashi, Y., Ikeno, M., Mihara, S., Nishiguchi, H., Oishi, K., Uchida, T., Ueno, K., and Yamaguchi, H., Gigabit Ethernet Daisy Chain on FPGA for COMET Readout Electronics; *TNS Aug. 2021* 1968-1975
- Hamada, E.**, see Takahashi, T., *TNS Aug. 2021* 1907-1911
- Hammer, M.**, see Shanks, K.S., *TNS Dec. 2021* 2753-2761
- Hammig, M.D.**, see Boo, J., *TNS May 2021* 1175-1183
- Hampel, U.**, see Windisch, D., *TNS Dec. 2021* 2779-2786
- Han, D.**, see Li, M., *TNS Aug. 2021* 2309-2314
- Han, H.**, see Chen, X., *TNS Oct. 2021* 2533-2538
- Han, M.**, see Zink, B., *TNS May 2021* 748-755
- Han, X.**, Privat, A., Holbert, K.E., Seo, J., Yu, S., and Barnaby, H.J., Total Ionizing Dose Effects on Multistate HfO_x-Based RRAM Synaptic Array; *TNS May 2021* 756-761
- Han, Y.A.**, see Aharonian, F., *TNS Aug. 2021* 2257-2267
- Han, Z.**, see Wang, Y., *TNS Aug. 2021* 1660-1667
- Hang, S.**, see Clerboux, B., *TNS Aug. 2021* 2121-2126
- Hansen, D.L.**, Low and Medium Earth-Orbit Error Rates Using Design-of-Experiments and Monte-Carlo Methods; *TNS May 2021* 642-650
- Hansen, D.L.**, A Track-Structure-Based Approach to Upset-Rate Calculations Using the Katz Model; *TNS Aug. 2021* 1633-1641
- Hansen, K.**, see Porro, M., *TNS June 2021* 1334-1350
- Hao, Y.**, see Wang, Y., *TNS Feb. 2021* 149-155
- Hao, Y.**, see Zhu, T., *TNS Nov. 2021* 2616-2623
- Haran, A.**, Yitzhak, N.M., Mazal-Tov, E., Keren, E., David, D., Refaeli, N., Preziosi, E., Senesi, R., Cazzaniga, C., Frost, C.D., Hadas, T., Zangi, U., and Andreani, C., Ultralow Power System-on-Chip SRAM Characterization by Alpha and Neutron Irradiation; *TNS Nov. 2021* 2598-2608
- Harris, P.**, see Guglielmo, G.D., *TNS Aug. 2021* 2179-2186
- Harrison, R.K.**, see Rice, W.C., *TNS May 2021* 890-896
- Hartbrich, O.**, see Nakao, M., *TNS Aug. 2021* 1826-1832
- Hartbrich, O.**, see Zhou, Q.D., *TNS Aug. 2021* 1818-1825
- Hartmann, U.**, see Augustin, H., *TNS Aug. 2021* 1833-1840
- Hasan, M.S.**, see Shawkat, M.S.A., *TNS March 2021* 279-291
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- Hashimoto, M.**, see Ito, K., *TNS Aug. 2021* 1668-1674
- Hattar, K.**, see Surendranathan, U., *TNS May 2021* 733-739
- Hattar, K.**, see Kumari, P., *TNS May 2021* 1032-1039
- Hattar, K.**, see Sakib, S., *TNS July 2021* 1445-1453
- Hauf, S.**, see Porro, M., *TNS June 2021* 1334-1350
- Haufe, C.R.**, see Abgrall, N., *TNS March 2021* 359-367
- Hayashi, N.**, see Tamura, F., *TNS Aug. 2021* 2043-2050
- Hazama, R.**, see Khai, B.T., *TNS March 2021* 368-378
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- He, C.**, see Zheng, Q., *TNS Oct. 2021* 2516-2523
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- He, H.H.**, see Aharonian, F., *TNS Aug. 2021* 2257-2267
- He, H.N.**, see Aharonian, F., *TNS Aug. 2021* 2257-2267
- He, J.C.**, see Aharonian, F., *TNS Aug. 2021* 2257-2267
- He, R.**, see Yang, H., *TNS Dec. 2021* 2794-2800
- He, S.L.**, see Aharonian, F., *TNS Aug. 2021* 2257-2267
- He, X.**, see Chen, S., *TNS Aug. 2021* 2268-2278
- He, X.B.**, see Aharonian, F., *TNS Aug. 2021* 2257-2267
- He, Y.**, see Chen, Z., *TNS Feb. 2021* 118-123
- He, Y.**, see Peng, C., *TNS Feb. 2021* 156-164
- He, Y.**, see Aharonian, F., *TNS Aug. 2021* 2257-2267
- He, Z.**, see Shy, D., *TNS Feb. 2021* 211-219
- He, Z.**, see Zhu, Y., *TNS Feb. 2021* 250-255
- He, Z.Q.**, see Aharonian, F., *TNS Aug. 2021* 2257-2267
- Hecht, A.A.**, see Carson, M., *TNS March 2021* 292-304
- Hecla, J.**, Knecht, K., Gunter, D., Haefner, A., Hellfeld, D., Joshi, T.H.Y., Moran, A., Negut, V., Pavlovsky, R., and Vetter, K., Polar-LAMP: Multimodal 3-D Image Reconstruction With a Commercial Gamma-Ray Imager; *TNS Oct. 2021* 2539-2549
- Hegedus, R.J.**, see Abgrall, N., *TNS March 2021* 359-367
- Heidari, H.**, see Fan, H., *TNS May 2021* 1094-1102
- Heller, M.**, see Aharonian, F., *TNS Aug. 2021* 2257-2267
- Hellfeld, D.**, see Marshall, M.R., *TNS Feb. 2021* 189-202
- Hellfeld, D.**, see Hecla, J., *TNS Oct. 2021* 2539-2549
- Hellfeld, D.**, see Bandstra, M.S., *TNS Nov. 2021* 2637-2646
- Hemmick, T.K.**, see Shulga, E., *TNS Jan. 2021* 59-69
- Heng, Y.**, see Li, M., *TNS Aug. 2021* 2309-2314
- Hennessy, K.**, Prieto, A.F., Regueiro, P.V., Buytaert, J., Van Beuzekom, M., Cid, E.L., Eklund, L., de Bruyn, K., Naik, S., Schiller, M., Murray, D., Leflat, A., Bassi, G., Punzi, G., Lazzari, F., Morello, M.J., Garcia, O.B., Torreira, A.G., Plana, B.G., Bowcock, T., Dettori, F., Dreimanis, K., Lima, V.F., Hutchcroft, D., Rinnert, K., Shears, T., Augusto, O., Coco, V., Collins, P., Evans, T., Ferro-Luzzi, M., Schindler, H., Akiba, K., Occo, E.D., Graz, C.S., Hulsbergen, W., Hynds, D., Kostiuk, I., Merk, M., Snoch, A., Bobulska, D.S., Borghi, S., de Capua, S., Dutta, D., Gersabeck, M., Parkes, C., Svihra, P., Williams, M., Bogdanova, G., Volkov, V., Kopciewicz, P., Majewski, M., Oblakowska-Mucha, A., Rachwal, B., Szumlak, T., Garcia, L.M., Marinho, F., Mendes, L.H., Nasteva, I., Otalora, J., Rodrigues, G., Velthuis, J., Jalocha, P., John, M., Jurik, N., Scantlebury-Smead, L., Back, J., Gershon, T., Latham, T., Morris, A., Readout Firmware of the Vertex Locator for LHCb Run 3 and Beyond; *TNS Oct. 2021* 2472-2479
- Hennig, W.**, and Hoover, S., White Rabbit Time Synchronization for Radiation Detector Readout Electronics; *TNS Aug. 2021* 2059-2065
- Henning, R.**, see Abgrall, N., *TNS March 2021* 359-367
- Herranz, D.**, see Dazzi, F., *TNS July 2021* 1473-1486
- Herrmann, N.**, see Ciobanu, M., *TNS June 2021* 1325-1333
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- Hierholzer, M.**, see Zenker, K., *TNS Sept. 2021* 2326-2333
- Higuchi, T.**, see Zhou, Q.D., *TNS Aug. 2021* 1818-1825
- Hirano, Y.**, see Yamamoto, S., *TNS Dec. 2021* 2748-2752
- Hiraoka, H.**, see Khai, B.T., *TNS March 2021* 368-378
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- Hirschauer, J.**, see Guglielmo, G.D., *TNS Aug. 2021* 2179-2186
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- Hodges, A.**, see Aidala, C.A., *TNS Feb. 2021* 173-181
- Holbert, K.E.**, see Privat, A., *TNS May 2021* 671-676
- Holbert, K.E.**, see Han, X., *TNS May 2021* 756-761
- Holman, T.**, see Rony, M.W., *TNS July 2021* 1465-1472
- Holmes, T.**, see Sottocornola, S., *TNS Aug. 2021* 2051-2058
- Honda, R.**, see Takahashi, T., *TNS Aug. 2021* 1907-1911
- Hong, B.**, see Teh, F.C.E., *TNS Aug. 2021* 2294-2300
- Hongxia, G.**, see Pengfei, H., *TNS March 2021* 318-324
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- Hoppe, E.W.**, see Abgrall, N., *TNS March 2021 359-367*
- Hor, Y.K.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Horton-Smith, G.**, see Gioiosa, A., *TNS Aug. 2021 1862-1868*
- Horyn, L.**, see Sottocornola, S., *TNS Aug. 2021 2051-2058*
- Hostiuc, A.**, see Abgrall, N., *TNS March 2021 359-367*
- Hou, C.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Hou, L.**, see Chen, X., *TNS Oct. 2021 2533-2538*
- Hou, S.**, see Huang, X., *TNS Aug. 2021 1998-2004*
- Hou, X.**, see Wang, X., *TNS July 2021 1399-1406*
- Hou, X.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Hu, C.**, Lu, N., Zhang, L., Zhu, R., Bornheim, A., Narvaez, L., Trevor, J., and Spiropulu, M., Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages; *TNS June 2021 1244-1250*
- Hu, H.**, see Shanks, K.S., *TNS Dec. 2021 2753-2761*
- Hu, H.B.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Hu, J.**, see Marini, F., *TNS Aug. 2021 1952-1960*
- Hu, N.**, see Dayani, P., *TNS Dec. 2021 2702-2710*
- Hu, Q.**, Qian, S., Zhang, Y., Zheng, G., Wang, Z., Wu, Q., Ma, L., Guo, H., and Peng, S., Study on Time Test Systems for Ultra-Fast Photodetectors; *TNS Aug. 2021 2101-2104*
- Hu, Q.**, see Yan, M., *TNS Aug. 2021 2096-2100*
- Hu, S.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Hu, S.C.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Hu, X.**, see Zhu, G., *TNS Jan. 2021 9-20*
- Hu, X.**, see Xia, X., *TNS Feb. 2021 236-244*
- Hu, X.J.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Hu, Y.**, see Wu, B., *TNS April 2021 470-476*
- Hu, Y.**, Wang, Y., Kuang, J., and Wu, B., A Clock Distribution and Synchronization Scheme Over Optical Links for Large-Scale Physics Experiments; *TNS June 2021 1351-1358*
- Hu, Y.**, see Zhao, R., *TNS Nov. 2021 2647-2654*
- Hu, Z.**, see Liu, C., *TNS Nov. 2021 2609-2615*
- Hu-Guo, C.**, see Zhao, R., *TNS Nov. 2021 2647-2654*
- Hua, N.**, see Wang, Y., *TNS Feb. 2021 149-155*
- Huang, B.**, see Dong, P., *TNS March 2021 312-317*
- Huang, D.H.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Huang, G.**, see Deng, W., *TNS Aug. 2021 1937-1943*
- Huang, G.**, see Huang, X., *TNS Aug. 2021 1998-2004*
- Huang, H.**, see Geng, X., *TNS Aug. 2021 2301-2308*
- Huang, J.**, see Aidala, C.A., *TNS Feb. 2021 173-181*
- Huang, J.**, see Wang, L., *TNS March 2021 338-345*
- Huang, J.**, see Pan, L., *TNS May 2021 1152-1160*
- Huang, L.**, Deng, Q., Wu, F., Lu, P., Zhou, T., Wang, J., Zhou, Z., Tang, L., Wang, C., and Sun, B., Development of a High-Resolution Digital Beam Position Processor for the Hefei Advanced Light Facility Preresearch Project; *TNS Aug. 2021 2239-2248*
- Huang, P.**, Zhao, Z., Chi, Y., Liang, B., Ma, C., Sun, Q., and Wu, Z., Effect of Cell Placement on Single-Event Transient Pulse in a Bulk FinFET Technology; *TNS May 2021 1103-1110*
- Huang, Q.**, see Zhu, B., *TNS June 2021 1309-1318*
- Huang, Q.L.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Huang, R.**, see Ren, Z., *TNS Aug. 2021 1565-1570*
- Huang, R.**, see Zhang, H., *TNS Aug. 2021 2081-2087*
- Huang, W.H.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Huang, X.**, see Dong, Z., *TNS June 2021 1207-1221*
- Huang, X.**, see Yuan, J., *TNS Aug. 2021 1849-1854*
- Huang, X.**, see Zhang, W., *TNS Aug. 2021 1984-1992*
- Huang, X.**, Gong, D., Hou, S., Huang, G., Liu, C., Liu, T., Qi, M., Sun, H., Sun, Q., Zhang, L., Zhang, W., Zhao, X., and Ye, J., A 10-Gb/s Driver/Receiver ASIC and Optical Modules for Particle Physics Experiments; *TNS Aug. 2021 1998-2004*
- Huang, X.T.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Huang, Y.**, see Chen, Z., *TNS Feb. 2021 118-123*
- Huang, Y.**, see Chen, Z., *TNS Feb. 2021 118-123*
- Huang, Y.**, see Peng, C., *TNS Feb. 2021 156-164*
- Huang, Y.**, see Wang, Y., *TNS Aug. 2021 1660-1667*
- Huang, Z.C.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Hubbs, J.E.**, see Sun, X., *TNS Jan. 2021 27-35*
- Huber, S.**, see Frolov, V., *TNS Aug. 2021 1891-1898*
- Huber, S.**, Konorov, I., Levit, D., Paul, S., and Steffen, D., Performance of the Data-Handling Hub Readout System for the Belle II Pixel Detector; *TNS Aug. 2021 1961-1967*
- Hubert, G.**, see Clemente, J.A., *TNS Sept. 2021 2383-2391*
- Hufschmidt, P.**, see Haag, D., *TNS May 2021 1129-1134*
- Hughart, D.**, see Alamdar, M., *TNS May 2021 665-670*
- Hughart, D.R.**, see Xiao, T.P., *TNS May 2021 581-585*
- Hughart, D.R.**, see Xiao, T.P., *TNS May 2021 762-769*
- Hulsbergen, W.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
- Hunter, M.A.**, see Myllenbeck, N.R., *TNS Sept. 2021 2400-2406*
- Hupe, O.**, see Haag, D., *TNS May 2021 1129-1134*
- Hurlbut, C.**, see Pritchard, K., *TNS July 2021 1519-1527*
- Hutchcroft, D.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
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- Hynds, D.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*

I

- Ibrahim, M.A.**, Abdel-Aziz, M.M., Abdelwahab, M.S., Mohamed, A.A., Soliman, N.S., and Abou-Auf, A.A., A Comprehensive Comparison Between Design for Testability Techniques for Total Dose Testing of Flash-Based FPGAs; *TNS Aug. 2021 2232-2238*
- Ichihara, T.**, see Baba, H., *TNS Aug. 2021 1841-1848*
- Ichikawa, M.**, see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Igarashi, Y.**, and Sendai, H., Data-Taking Network for COMET Phase-I; *TNS Aug. 2021 1884-1890*
- Igarashi, Y.**, see Hamada, E., *TNS Aug. 2021 1968-1975*
- Iida, T.**, see Khai, B.T., *TNS March 2021 368-378*
- Iizawa, T.**, see Sottocornola, S., *TNS Aug. 2021 2051-2058*
- Ikeda, Y.**, see Ma, B., *TNS Feb. 2021 110-117*
- Ikeno, M.**, see Hamada, E., *TNS Aug. 2021 1968-1975*
- Ikeno, M.**, see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Ikeno, M.**, see Nakazawa, Y., *TNS Aug. 2021 2028-2034*
- Ildefonso, A.**, see Tzintzarov, G.N., *TNS May 2021 785-792*
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- Inguibert, C.**, see Caron, P., *TNS Aug. 2021 1607-1612*
- Inguibert, C.**, Caron, P., Gibaru, Q., Sicard, A., Balcon, N., and Ecoffet, R., Surface Ionizing Dose for Space Applications Estimated With Low Energy Spectra Going Down to Hundreds of Electronvolt; *TNS Aug. 2021 1754-1763*
- Ishii, S.**, see Sakamoto, K., *TNS June 2021 1222-1227*
- Isobe, T.**, see Baba, H., *TNS Aug. 2021 1841-1848*
- Isocrate, R.**, see Marini, F., *TNS Aug. 2021 1952-1960*
- Ito, K.**, see Liao, W., *TNS June 2021 1228-1234*
- Ito, K.**, Zhang, Y., Itsuji, H., Uezono, T., Toba, T., and Hashimoto, M., Analyzing DUE Errors on GPUs With Neutron Irradiation Test and Fault Injection to Control Flow; *TNS Aug. 2021 1668-1674*
- Ito, Y.**, see Tamura, F., *TNS Aug. 2021 2043-2050*
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- Jackson, M.**, see Peracchi, S., *TNS May 2021 897-905*
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- Jalocha, P.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
- James, B.**, see Peracchi, S., *TNS May 2021 897-905*
- James, B., Wirthlin, M., and Goeders, J.**, Investigating How Software Characteristics Impact the Effectiveness of Automated Software Fault Tolerance; *TNS May 2021 1014-1022*
- James, R.B.**, see Kleppinger, J.W., *TNS Sept. 2021 2429-2434*
- Janvier, N.**, see Mansour, W., *TNS Aug. 2021 1927-1932*
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- Javanainen, A.**, see Soderstrom, D., *TNS May 2021 716-723*
- Javanainen, A.**, see Martinella, C., *TNS May 2021 634-641*
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- Javanainen, A.**, see Coronetti, A., *TNS May 2021 937-948*
- Javanainen, A.**, see Coronetti, A., *TNS Aug. 2021 1613-1622*
- Jegal, J., Park, H.W., Park, H., and Kim, H.J.**, Development of the Calibration System and Characterization of the Avalanche Photodiode for Scintillation Detection; *TNS June 2021 1304-1308*
- Jeon, S., Lee, J., Kim, Y., and Choi, Y.**, Electrical Analysis Method for Gamma-Ray Imaging System Based on Resistive Network Readout; *TNS Sept. 2021 2392-2399*
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- Johnstone, C., Kutsaev, S.V., Lanza, R., Boucher, S., and Johnson, R.**, High-Current Light-Ion Cyclotron for Applications in Nuclear Security and Radioisotope Production; *TNS May 2021 1072-1082*
- Johnstone, C.**, see Kutsaev, S.V., *TNS May 2021 1083-1093*
- Jokai, R.**, see Privat, A., *TNS May 2021 671-676*
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- Jourdain, A.**, see Li, K., *TNS May 2021 740-747*
- Ju, A., Guo, H., Ding, L., Zhang, F., Zhong, X., Pan, X., Zhang, H., and Bi, J.**, Analysis of Ion-Induced SEFI and SEL Phenomena in 90 nm NOR Flash Memory; *TNS Oct. 2021 2508-2515*
- Juckeland, G.**, see Windisch, D., *TNS Dec. 2021 2779-2786*
- Jules, E.**, see Zhou, Q.D., *TNS Aug. 2021 1818-1825*
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- Kanno, K.**, see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Kapusta, P.**, see Zhou, Q.D., *TNS Aug. 2021 1818-1825*
- Karcher, N., Gebauer, R., Bauknecht, R., Illichmann, R., and Sander, O.**, Versatile Configuration and Control Framework for Real-Time Data Acquisition Systems; *TNS Aug. 2021 1899-1906*
- Karkour, N., Alaphilippe, V., Collado, J., Dosme, N., Gibelin, L., Gonzalez, V., Grave, X., Jacob, J., Lafay, X., Legay, E., Linget, D., Pullia, A., Quenez, M., Sidler, D., Tessier, N., and Vinther-Jorgensen, G.**, A Development of a 40-Gb/s Readout Interface STARE for the AGATA Project; *TNS Aug. 2021 2005-2011*
- Karsai, G.**, see Rony, M.W., *TNS July 2021 1465-1472*
- Kase, H.**, see Takagi, K., *TNS Sept. 2021 2435-2439*
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- Kastriotou, M.**, see Martinella, C., *TNS May 2021 634-641*
- Kastriotou, M.**, see Blower, S., *TNS Aug. 2021 1719-1726*
- Kato, T., Tampo, M., Takeshita, S., Tanaka, H., Matsuyama, H., Hashimoto, M., and Miyake, Y.**, Muon-Induced Single-Event Upsets in 20-nm SRAMs: Comparative Characterization With Neutrons and Alpha Particles; *TNS July 2021 1436-1444*
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- Kavetskiy, A., Yakubova, G., Sargsyan, N., Prior, S.A., and Torbert, H.A.**, Neutron-Stimulated Gamma Ray Measurements for Chlorine Detection; *TNS July 2021 1495-1504*
- Kavetskiy, A., Yakubova, G., Sargsyan, N., Prior, S.A., Torbert, H.A., and Chin, B.A.**, Measuring and Mapping Potassium in Agricultural Fields Using Gamma Spectroscopy; *TNS Oct. 2021 2550-2558*
- Kawama, D.**, see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Kawamura, N.**, see Yamamoto, S., *TNS Dec. 2021 2748-2752*
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- Kayalvizhi, R.**, see Malarvizhi, S., *TNS June 2021 1296-1303*
- Keller, A.M., and Wirthlin, M.J.**, Partial TMR for Improving the Soft Error Reliability of SRAM-Based FPGA Designs; *TNS May 2021 1023-1031*
- Kempf, I., Goulart, P.J., Duncan, S.R., and Rehm, G.**, Symmetry Exploitation in Orbit Feedback Systems of Synchrotrons for Computational Efficiency; *TNS March 2021 258-269*
- Kerboub, N.**, see Coronetti, A., *TNS May 2021 958-969*
- Kerboub, N., Di Francesca, D., Girard, S., Morana, A., El Hamzaoui, H., Ouerdane, Y., Bouwmans, G., Habert, R., Boukenter, A., Capoen, B., Marin, E., Bouazaoui, M., Kadi, Y., Ricci, D., Garcia Alia, R., Mekki, J., and Brugger, M.**, Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials; *TNS Aug. 2021 1782-1787*

- Keren, E.**, see Haran, A., *TNS Nov. 2021 2598-2608*
- Kettunen, H.**, see Soderstrom, D., *TNS May 2021 716-723*
- Kettunen, H.**, see Coronetti, A., *TNS May 2021 958-969*
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- Khai, B.T.**, see Viet, N.V.H., *TNS Feb. 2021 203-210*
- Khai, B.T.**, Ajimura, S., Chan, W.M., Fushimi, K., Hazama, R., Hiraoka, H., Iida, T., Kanagawa, K., Kino, H., Kishimoto, T., Maeda, T., Nakajima, K., Nomachi, M., Ogawa, I., Ohata, T., Suzuki, K., Takemoto, Y., Takihira, Y., Tamagawa, Y., Tozawa, M., Tsuzuki, M., Umehara, S., and Yoshida, S., A Study on Energy Resolution of CANDLES Detector; *TNS March 2021 368-378*
- Khanal, O.B.**, see Teh, F.C.E., *TNS Aug. 2021 2294-2300*
- Kidd, M.F.**, see Abgrall, N., *TNS March 2021 359-367*
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- Kim, I.**, see Abgrall, N., *TNS March 2021 359-367*
- Kim, Y.**, see Aidala, C.A., *TNS Feb. 2021 173-181*
- Kim, Y.**, Cho, S., Park, S., Nakao, M., and Konno, T., Archiver System Management for Belle II Detector Operation; *TNS Aug. 2021 2146-2150*
- Kim, Y.**, see Jeon, S., *TNS Sept. 2021 2392-2399*
- Kim, Y.J.**, see Teh, F.C.E., *TNS Aug. 2021 2294-2300*
- King, M.P.**, see Privat, A., *TNS May 2021 671-676*
- King, M.P.**, see Esposito, M.G., *TNS May 2021 724-732*
- Kino, H.**, see Khai, B.T., *TNS March 2021 368-378*
- Kishimoto, S.**, and Toda, A., High-Energy and High-Rate X-Ray Measurements Using HfO₂ Nanoparticle-Loaded Plastic Scintillator; *TNS Feb. 2021 165-172*
- Kishimoto, T.**, see Khai, B.T., *TNS March 2021 368-378*
- Kishishita, T.**, Kosugi, R., Fujita, Y., Fukao, Y., Kojima, K., Masumoto, K., Nishiguchi, H., Tanaka, M.M., and Tanaka, Y., SiC p+n Junction Diodes Toward Beam Monitor Applications; *TNS Dec. 2021 2787-2793*
- Klaer, H.**, see Porro, M., *TNS June 2021 1334-1350*
- Kleppinger, J.W.**, Chaudhuri, S.K., Roy, U.N., James, R.B., and Mandal, K.C., Growth of Cd_{0.9}Zn_{0.1}Te_{1-y}Se_y Single Crystals for Room-Temperature Gamma Ray Detection; *TNS Sept. 2021 2429-2434*
- Klys, K.**, Cichalewski, W., Jalmuzna, W., Mielczarek, A., Perek, P., and Napieralski, A., High-Level Software Interface to the LLRF System Developed for the European Spallation Source Facility; *TNS Aug. 2021 2132-2139*
- Knecht, K.**, see Hecla, J., *TNS Oct. 2021 2539-2549*
- Knodel, O.**, see Windisch, D., *TNS Dec. 2021 2779-2786*
- Kobayashi, D.**, Scaling Trends of Digital Single-Event Effects: A Survey of SEU and SET Parameters and Comparison With Transistor Performance; *TNS Feb. 2021 124-148*
- Kobayashi, D.**, see Sakamoto, K., *TNS June 2021 1222-1227*
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- Koch, H.D.**, see Borghello, G., *TNS May 2021 573-580*
- Koelpin, A.**, see Coronetti, A., *TNS May 2021 958-969*
- Kohout, P.**, Kouril, L., Opichal, A., Kohoutova, A., and Pechousek, J., Mössbauer Spectrometer With Advanced Modulation of Gamma Ray Energy Utilizing Real-Time Industrial Computer; *TNS Aug. 2021 1869-1875*
- Kohoutova, A.**, see Kohout, P., *TNS Aug. 2021 1869-1875*
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- Kolos, S.**, Crone, G., and Vazquez, W.P., New Software-Based Readout Driver for the ATLAS Experiment; *TNS Aug. 2021 1811-1817*
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- Kruckmeyer, K.**, see Morand, S., *TNS June 2021 1279-1285*
- Kruszewski, M.**, and Zabolotny, W.M., Safe and Reusable Approach for Pin-to-Port Assignment in Multiboard FPGA Data Acquisition and Control Designs; *TNS June 2021 1186-1193*
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- Kumar, S.**, Herzkamp, M., and van Waasen, S., Nonlinearity Simulation of Digital SiPM Response for Inhomogeneous Light; *TNS March 2021 354-358*
- Kumar, S.**, see Pande, N., *TNS Dec. 2021 2736-2747*
- Kumari, P.**, see Surendranathan, U., *TNS May 2021 733-739*
- Kumari, P.**, Surendranathan, U., Wasiolek, M., Hattar, K., Bhat, N.P., and Ray, B., Radiation-Induced Error Mitigation by Read-Retry Technique for MLC 3-D NAND Flash Memory; *TNS May 2021 1032-1039*
- Kunigo, T.**, see Nakao, M., *TNS Aug. 2021 1826-1832*
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- Kuntzsch, M.**, see Bellandi, A., *TNS April 2021 385-393*
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- Kurimoto, Y.**, Particle Tracking With Space Charge Effects Using Graphics Processing Unit; *TNS Aug. 2021 1912-1919*
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- Kusano, M.**, see Sakamoto, K., *TNS June 2021 1222-1227*
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- Kutsaev, S.V.**, see Johnstone, C., *TNS May 2021 1072-1082*
- Kutsaev, S.V.**, Johnstone, C., Adonyev, O., Agustsson, R., Ford, R., and Kashi-khin, V., Electromagnetic and Engineering Design of a High-Current 15-MeV/u Cyclotron; *TNS May 2021 1083-1093*
- Kuvvetli, I.**, see Owe, S.H., *TNS Sept. 2021 2440-2446*
- Kuzmin, A.**, see Nakao, M., *TNS Aug. 2021 1826-1832*
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- Kwok, M.**, see Guglielmo, G.D., *TNS Aug. 2021 2179-2186*
- Kwon, I.**, Shin, D., Oh, J., Kim, C., and Kim, H., Preprocessing Energy Intervals on Spectrum for Real-Time Radionuclide Identification; *TNS Aug. 2021 2202-2209*

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- Labanti, C.**, see Mele, F., *TNS Dec. 2021 2801-2809*
- Label, K.A.**, see Casey, M.C., *TNS April 2021 402-409*

- Label, K.A.**, see Campola, M.J., *TNS May 2021 1002-1007*
- Ladbury, R.**, Bay, M., and Zinchuk, J., Threats to Resiliency of Redundant Systems Due to Destructive SEEs; *TNS May 2021 970-979*
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- Lalumondiere, S.D.**, see Hales, J.M., *TNS May 2021 617-625*
- Lambert, D.**, see Gaillardin, M., *TNS May 2021 928-936*
- Lambert, D.**, Gaillardin, M., Raine, M., Paillet, P., Duhamel, O., Marcandella, C., Martinez, M., Rostand, N., Lagutere, T., Aubert, D., Assailit, G., and Delbos, C., TID Effects Induced by ARACOR, ⁶⁰Co, and ORIATRON Photon Sources in MOS Devices: Impact of Geometry and Materials; *TNS May 2021 991-1001*
- Landini, C.**, see Marini, F., *TNS Aug. 2021 1952-1960*
- Lanza, A.**, see Sottocornola, S., *TNS Aug. 2021 2051-2058*
- Lanza, R.**, see Johnstone, C., *TNS May 2021 1072-1082*
- Laplace, T.A.**, see Gabella, G., *TNS Jan. 2021 46-53*
- Larsen, S.**, see Wilson, A.E., *TNS May 2021 1054-1060*
- Lastoria, C.**, see Belver, D., *TNS Sept. 2021 2334-2341*
- Latham, T.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
- Lauenstein, J.**, see Sun, X., *TNS Jan. 2021 27-35*
- Lauenstein, J.**, see Osheroff, J.M., *TNS May 2021 597-602*
- Lauenstein, J.**, see Ball, D.R., *TNS July 2021 1430-1435*
- Laurent, A.**, see Aubry, M., *TNS May 2021 793-800*
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- Le Cocq, T.**, see Levillayer, M., *TNS Aug. 2021 1694-1700*
- Le Roch, A.**, see Dewitte, H., *TNS May 2021 697-706*
- Leavitt, J.**, see Libano, F., *TNS May 2021 865-872*
- Lechner, P.**, see Porro, M., *TNS June 2021 1334-1350*
- Lee, H.**, see Cha, H., *TNS May 2021 1135-1143*
- Lee, H.S.**, see Teh, F.C.E., *TNS Aug. 2021 2294-2300*
- Lee, J.**, see Teh, F.C.E., *TNS Aug. 2021 2294-2300*
- Lee, J.**, see Jeon, S., *TNS Sept. 2021 2392-2399*
- Lee, J.W.**, see Teh, F.C.E., *TNS Aug. 2021 2294-2300*
- Lee, K.**, see Cha, H., *TNS May 2021 1135-1143*
- Lee, M.**, see Nakazawa, Y., *TNS Aug. 2021 2028-2034*
- Lee, S.**, see Santurio, E.V., *TNS Sept. 2021 2414-2420*
- Lee, S.H.**, see Peracchi, S., *TNS May 2021 897-905*
- Leem, S.**, see Cha, H., *TNS May 2021 1135-1143*
- Lefebvre, J.P.**, see Bledsoe, K.C., *TNS Aug. 2021 2210-2219*
- Lefevre, G.**, see Vogel, T., *TNS Aug. 2021 1542-1547*
- Leflat, A.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
- Legay, E.**, see Karkour, N., *TNS Aug. 2021 2005-2011*
- Lei, Z.**, see Chen, Z., *TNS Feb. 2021 118-123*
- Lei, Z.**, see Peng, C., *TNS Feb. 2021 156-164*
- Lemiere, K.**, Inguibert, C., and Nuns, T., A Kinetic Monte Carlo Algorithm to Model the Annealing Process and Compute the Dark Current Nonuniformity; *TNS Aug. 2021 1701-1711*
- Leng, Y.**, see Cao, S., *TNS Jan. 2021 2-8*
- Lenz, M.D.**, see Aidala, C.A., *TNS Feb. 2021 173-181*
- Lenz, W.**, see Aidala, C.A., *TNS Feb. 2021 173-181*
- Leombruni, O.**, Annovi, A., Giannetti, P., Biesuz, N.V., Roda, C., Calvetti, M., Piendibene, M., Peretti, L., Cencini, M., Tosetti, M., and Buonincontri, G., Pattern-Matching Unit for Medical Applications; *TNS Aug. 2021 2140-2145*
- Lerch, M.L.F.**, see Peracchi, S., *TNS May 2021 897-905*
- Leroux, P.**, see Wang, J., *TNS May 2021 913-920*
- Leroux, P.**, see Coronetti, A., *TNS May 2021 937-948*
- Leroux, P.**, see Biereigel, S., *TNS Nov. 2021 2587-2597*
- Levillayer, M.**, Duzellier, S., Massiot, I., Arnoult, A., Nuns, T., Inguibert, C., Aicardi, C., Parola, S., Olivie, F., Monflier, R., Le Cocq, T., Rey, R., Pons, C., Almuneau, G., and Artola, L., Degradation Study of InGaAsN p-i-n Solar Cell Under 1-MeV Electron Irradiation; *TNS Aug. 2021 1694-1700*
- Levit, D.**, see Nakao, M., *TNS Aug. 2021 1826-1832*
- Levit, D.**, see Frolov, V., *TNS Aug. 2021 1891-1898*
- Levit, D.**, see Huber, S., *TNS Aug. 2021 1961-1967*
- Levochkin, K.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Levy, J.E.**, see Rice, W.C., *TNS May 2021 890-896*
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- Li, B.**, see Dong, Z., *TNS June 2021 1207-1221*
- Li, B.**, see Wang, Y., *TNS Aug. 2021 1660-1667*
- Li, B.**, see Wang, Y., *TNS Aug. 2021 1660-1667*
- Li, B.B.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, C.**, see Wu, B., *TNS April 2021 470-476*
- Li, C.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, C.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, F.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, G.**, see Ren, Z., *TNS Aug. 2021 1565-1570*
- Li, H.**, see Ding, Y., *TNS Aug. 2021 2088-2095*
- Li, H.**, see Song, S., *TNS Aug. 2021 2066-2073*
- Li, H.**, Zhang, J., Ding, Y., Wei, W., Li, Z., Ji, X., Liu, P., Li, Q., Jiang, X., Wang, Z., Chen, Y., and Zhu, K., A Dual Module Parallel Readout System Based on 10 Gb TCP/IP Transmission for HEPs-BPIX Detector; *TNS Nov. 2021 2624-2629*
- Li, H.B.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, H.C.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, H.Y.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, J.**, see Dong, Z., *TNS June 2021 1207-1221*
- Li, J.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, K.**, Zhang, E.X., Gorchichko, M., Wang, P.F., Reaz, M., Zhao, S.E., Hiblot, G., Van Huylbroeck, S., Jourdain, A., Alles, M.L., Reed, R.A., Fleetwood, D.M., and Schrimpf, R.D., Impacts of Through-Silicon Vias on Total-Ionizing-Dose Effects and Low-Frequency Noise in FinFETs; *TNS May 2021 740-747*
- Li, K.**, see Rony, M.W., *TNS May 2021 807-814*
- Li, K.**, see Rony, M.W., *TNS July 2021 1465-1472*
- Li, K.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, K.**, see Ding, J., *TNS Dec. 2021 2724-2735*
- Li, L.**, see Yuan, J., *TNS Aug. 2021 1849-1854*
- Li, L.**, Chen, X., Jian, Y., Liu, X., Li, Z., Zeng, G., and Yang, G., Modeling the Ionization Damage on Excess Base Current in p-n-p BJTs for Circuit-Level Simulation; *TNS Aug. 2021 2220-2231*
- Li, L.**, see Guo, L., *TNS Dec. 2021 2711-2716*
- Li, M.**, see Tang, G., *TNS June 2021 1235-1243*
- Li, M.**, Cui, H., Fan, Y., Han, D., Heng, Y., Li, S., Liang, Z., Liu, B., Wang, W., Yang, X., Yu, C., and Zhang, X., The Timing Resolution of IHEP-NDL LGAD Sensors With Different Active Layer Thicknesses; *TNS Aug. 2021 2309-2314*
- Li, P.**, see Wang, Y., *TNS Feb. 2021 149-155*
- Li, Q.**, see Ding, Y., *TNS Aug. 2021 2088-2095*
- Li, Q.**, see Li, H., *TNS Nov. 2021 2624-2629*
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- Li, S.**, see Li, M., *TNS Aug. 2021 2309-2314*
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- Li, W.**, see Wan, P., *TNS June 2021 1258-1264*
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- Li, X.**, see Wu, B., *TNS April 2021 470-476*
- Li, X.**, see Teng, J.W., *TNS May 2021 949-957*
- Li, X.**, see Wan, P., *TNS June 2021 1265-1271*
- Li, X.**, see Wan, P., *TNS June 2021 1258-1264*
- Li, X.**, see Xiong, Y., *TNS Aug. 2021 1579-1584*
- Li, X.**, see Zhang, H., *TNS Aug. 2021 2081-2087*
- Li, X.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*

- Li, X., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, X., see Yang, H., *TNS Dec. 2021 2794-2800*
- Li, X.R., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, Y., see Gao, R., *TNS May 2021 1169-1174*
- Li, Y., see Fan, H., *TNS May 2021 1094-1102*
- Li, Y., see Zheng, Q., *TNS July 2021 1423-1429*
- Li, Y., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, Y., see Zheng, Q., *TNS Oct. 2021 2516-2523*
- Li, Y.Z., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, Z., see Zhu, G., *TNS Jan. 2021 9-20*
- Li, Z., see Wu, B., *TNS April 2021 470-476*
- Li, Z., see Ding, Y., *TNS Aug. 2021 2088-2095*
- Li, Z., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, Z., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Li, Z., see Li, L., *TNS Aug. 2021 2220-2231*
- Li, Z., see Li, H., *TNS Nov. 2021 2624-2629*
- Li Vecchi, G., see Morana, A., *TNS May 2021 906-912*
- Liang, B., see Huang, P., *TNS May 2021 1103-1110*
- Liang, B., see Liu, J., *TNS Dec. 2021 2717-2723*
- Liang, E.W., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liang, H., see Geng, X., *TNS Aug. 2021 2301-2308*
- Liang, H., see Pan, Z., *TNS Sept. 2021 2407-2413*
- Liang, J., see Zhong, K., *TNS Aug. 2021 1920-1926*
- Liang, T., see Wang, H., *TNS April 2021 394-401*
- Liang, X., see Geng, X., *TNS Aug. 2021 2301-2308*
- Liang, Y.F., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liang, Z., see Li, M., *TNS Aug. 2021 2309-2314*
- Liao, J., see Yang, H., *TNS Dec. 2021 2794-2800*
- Liao, W., Ito, K., Abe, S., Mitsuyama, Y., and Hashimoto, M., Characterizing Energetic Dependence of Low-Energy Neutron-Induced SEU and MCU and Its Influence on Estimation of Terrestrial SER in 65-nm Bulk SRAM; *TNS June 2021 1228-1234*
- Libano, F., Rech, P., Neuman, B., Leavitt, J., Wirthlin, M., and Brunhaver, J., How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs; *TNS May 2021 865-872*
- Lima, V.F., see Hennessy, K., *TNS Oct. 2021 2472-2479*
- Lin, C., see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Lin, C., see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Lin, Q., see Zhang, Y., *TNS Nov. 2021 2574-2586*
- Lin, S.J., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Lin, Z., see Pan, Z., *TNS Sept. 2021 2407-2413*
- Lindoso, A., see Pena-Fernandez, M., *TNS Aug. 2021 1651-1659*
- Linget, D., see Karkour, N., *TNS Aug. 2021 2005-2011*
- Linten, D., see Rony, M.W., *TNS May 2021 807-814*
- Linten, D., see Gorchichko, M., *TNS May 2021 687-696*
- Linten, D., see Ryder, L.D., *TNS May 2021 801-806*
- Lippi, I., see Marini, F., *TNS Aug. 2021 1952-1960*
- Liu, B., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, B., see Li, M., *TNS Aug. 2021 2309-2314*
- Liu, C., see Chen, Z., *TNS Feb. 2021 118-123*
- Liu, C., see Yu, P., *TNS April 2021 458-462*
- Liu, C., see Zhang, W., *TNS Aug. 2021 1984-1992*
- Liu, C., see Huang, X., *TNS Aug. 2021 1998-2004*
- Liu, C., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, C., Zhu, H., Xie, X., Hu, Z., Bi, D., Zhang, Z., and Zou, S., Investigation of Radiation Hardening by Back-Channel Adjustment in PDSOI MOSFETs; *TNS Nov. 2021 2609-2615*
- Liu, D., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, F., see Wang, Y., *TNS Aug. 2021 1660-1667*
- Liu, F., Deng, Z., Zhao, X., and Liu, Y., A Switched Capacitor Waveform Digitizing ASIC at Cryogenic Temperature for HPGc Detectors; *TNS Aug. 2021 2315-2322*
- Liu, H., see Zhong, K., *TNS Aug. 2021 1920-1926*
- Liu, H., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, H., see Bonini, F., *TNS Sept. 2021 2421-2428*
- Liu, H., see Guo, L., *TNS Dec. 2021 2711-2716*
- Liu, H.D., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, J., see Wu, B., *TNS April 2021 470-476*
- Liu, J., see Ren, Z., *TNS Aug. 2021 1565-1570*
- Liu, J., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, J., see Pan, Z., *TNS Sept. 2021 2407-2413*
- Liu, J., Liang, B., Guo, Y., Chen, J., Chi, Y., Sun, Q., Song, S., and Yuan, H., A Body-Biasing Technique for Single-Event Transient Mitigation in 28-nm Bulk CMOS Process; *TNS Dec. 2021 2717-2723*
- Liu, J., see Yang, H., *TNS Dec. 2021 2794-2800*
- Liu, J.L., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, J.S., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, J.Y., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, L., see Gao, R., *TNS May 2021 1169-1174*
- Liu, M.Y., see Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Liu, R., see Wang, T., *TNS Feb. 2021 101-109*
- Liu, R.Y., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, S., see Gu, J., *TNS Aug. 2021 2113-2120*
- Liu, S., see Lu, J., *TNS Aug. 2021 1976-1983*
- Liu, S.M., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, T., see Zhang, W., *TNS Aug. 2021 1984-1992*
- Liu, T., see Zhang, W., *TNS Aug. 2021 1984-1992*
- Liu, T., see Xu, J., *TNS Aug. 2021 1993-1997*
- Liu, T., see Huang, X., *TNS Aug. 2021 1998-2004*
- Liu, W., see Yu, P., *TNS April 2021 458-462*
- Liu, W., see Song, S., *TNS Aug. 2021 2066-2073*
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- Liu, X., see Li, L., *TNS Aug. 2021 2220-2231*
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- Liu, Y., see Liu, F., *TNS Aug. 2021 2315-2322*
- Liu, Y.N., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Liu, Z., see Yuan, J., *TNS Aug. 2021 1849-1854*
- Liu, Z., see Nakao, M., *TNS Aug. 2021 1826-1832*
- Liu, Z., see Guo, L., *TNS Dec. 2021 2711-2716*
- Liu, Z.X., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Llopart, X., see Egidos, N., *TNS April 2021 434-446*
- Llopart, X., see Haag, D., *TNS May 2021 1129-1134*
- Lochner, S., see Ciobanu, M., *TNS June 2021 1325-1333*
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- Lombardi, P., see Marini, F., *TNS Aug. 2021 1952-1960*
- Lombardo, C., see Marini, F., *TNS Aug. 2021 1952-1960*
- Lomidze, D., see Porro, M., *TNS June 2021 1334-1350*
- Loncar, V., see Guglielmo, G.D., *TNS Aug. 2021 2179-2186*
- Long, J.D., see Sottocornola, S., *TNS Aug. 2021 2051-2058*
- Long, W.J., see Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Looker, Q., see Gao, X., *TNS July 2021 1454-1464*
- Lopes, I., see Pena-Fernandez, M., *TNS Aug. 2021 1651-1659*
- Lopez, A.M., see Abgrall, N., *TNS March 2021 359-367*
- Lopez-Castano, J.M., see Abgrall, N., *TNS March 2021 359-367*
- Lopez-Moya, M., see Dazzi, F., *TNS July 2021 1473-1486*
- Loveless, D., see Fleetwood, D., *TNS May 2021 492*
- Loveless, D., see Fleetwood, D., *TNS Aug. 2021 1531*
- Loveless, T.D., see Cannon, J.M., *TNS May 2021 815-822*
- Loveless, T.D., Reising, D.R., Cancellieri, J.C., Massengill, L.W., and McMorrow, D., Analysis of Single-Event Transients (SETs) Using Machine Learning (ML) and Ionizing Radiation Effects Spectroscopy (IRES); *TNS Aug. 2021 1600-1606*
- Lozar, A., see Giordano, R., *TNS Dec. 2021 2810-2817*
- Lu, J., Zhao, L., Qin, J., Xu, H., Cao, J., Liu, S., and An, Q., Readout Electronics Prototype of TOF Detectors in CEE of HIRFL; *TNS Aug. 2021 1976-1983*
- Lu, N., see Hu, C., *TNS June 2021 1244-1250*
- Lu, P., see Zhao, Y., *TNS Feb. 2021 92-100*
- Lu, P., see Huang, L., *TNS Aug. 2021 2239-2248*
- Lu, R., see Aharonian, F., *TNS Aug. 2021 2257-2267*

- Lu, W.**, see Zheng, Q., *TNS July 2021 1423-1429*
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Luo, J., see Wang, Y., *TNS Aug. 2021 1660-1667*
Luo, X., see Ding, J., *TNS Dec. 2021 2724-2735*
Luo, Y., Zhang, F., Chen, W., Ding, L., and Wang, T., The Influence of Ion Track Characteristics on Single-Event Upsets and Multiple-Cell Upsets in Nanometer SRAM; *TNS May 2021 1111-1119*
Luo, Y., see Guglielmo, G.D., *TNS Aug. 2021 2179-2186*
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Lv, L., see Zhu, T., *TNS Nov. 2021 2616-2623*
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M

- Ma, B.**, Song, L., Yan, M., Ikeda, Y., Otake, Y., and Wang, S., Multiobjective Optimization Shielding Design for Compact Accelerator-Driven Neutron Sources by Application of NSGA-II and MCNP; *TNS Feb. 2021 110-117*
Ma, B.Q., see Aharonian, F., *TNS Aug. 2021 2257-2267*
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Ma, L., see Hu, Q., *TNS Aug. 2021 2101-2104*
Ma, L., see Yan, M., *TNS Aug. 2021 2096-2100*
Ma, L., Qian, S., Ning, Z., Wang, Z., Zhang, Y., Zhu, Y., Guo, H., Wu, Q., Peng, S., Zhang, L., and Wang, Z., How to Improve the Performance of Fast Timing Detector; *TNS Oct. 2021 2459-2463*
Ma, L.L., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Ma, P., see Zhu, T., *TNS Nov. 2021 2616-2623*
Ma, T., Bonaldo, S., Mattiazzo, S., Baschiroto, A., Enz, C., Paccagnella, A., and Gerardin, S., TID Degradation Mechanisms in 16-nm Bulk FinFETs Irradiated to Ultrahigh Doses; *TNS Aug. 2021 1571-1578*
Ma, X., see Wang, Y., *TNS Feb. 2021 149-155*
Ma, X., see Zhu, T., *TNS Nov. 2021 2616-2623*
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Macera, D., see Sammartini, M., *TNS Jan. 2021 70-75*
Macera, D., Gandola, M., Sammartini, M., and Bertuccio, G., ALTAIR: A Low-Noise, Low-Power, High-Speed and Wide Dynamic Range ASIC for X- and γ -Ray Spectroscopy With CdTe/CdZnTe Pixel Detectors; *TNS Feb. 2021 182-188*
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Makino, T., see Sakamoto, K., *TNS June 2021 1222-1227*
Maksimenco, T.A., see Muthuseenu, K., *TNS May 2021 611-616*
Malarvizhi, S., Kayalvizhi, R., Kumar, A., and Topkar, A., Raw Data Processing Using Modern Hardware for Inspection of Objects in X-Ray Baggage Inspection Systems; *TNS June 2021 1296-1303*
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- Marinho, F.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
- Marini, F.**, Bellato, M., Bergnoli, A., Brugnera, R., dal Corso, F., Corti, D., Dong, J., Garfagnini, A., Giaz, A., Gong, G., Hu, J., Isocrate, R., Jiang, X., Lippi, I., von Sturm, K., Aiello, S., Andronico, G., Antonelli, V., Bandini, W., Basilico, D., Brigatti, A., Barresi, A., Budano, A., Bruno, R., Caccianiga, B., Cammi, A., Caruso, R., Chiesa, D., Clementi, C., Costa, S., Ding, X., Dusini, S., Fabbri, A., Fargetta, M., Ford, R., Formozov, A., Giammarchi, M., Grassi, M., Landini, C., Lombardi, P., Lombardo, C., Mantovani, F., Mari, S.M., Martellini, C., Martini, A., Meroni, E., Mezzetto, M., Miramonti, L., Montini, P., Montuschi, M., Nastasi, M., Ortica, F., Paoloni, A., Parmeggiano, S., Pelliccia, N., Previtali, E., Ranucci, G., Riondino, D., Re, A.C., Ricci, B., Romani, A., Saggese, P., Serafini, A., Sirignano, C., Sisti, M., Stanco, L., Strati, V., Torri, M., Tuve, C., Verde, G., and Votano, L., FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics; *TNS Aug. 2021 1952-1960*
- Mariotti, M.**, see Dazzi, F., *TNS July 2021 1473-1486*
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- Marshall, M.R.**, Hellfeld, D., Joshi, T.H.Y., Salathe, M., Bandstra, M.S., Bilton, K.J., Cooper, R.J., Curtis, J.C., Negut, V., Shurley, A.J., and Vetter, K., 3-D Object Tracking in Panoramic Video and LiDAR for Radiological Source-Object Attribution and Improved Source Detection; *TNS Feb. 2021 189-202*
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- Martinella, C.**, Alia, R.G., Stark, R., Coronetti, A., Cazzaniga, C., Kastriotou, M., Kadi, Y., Gaillard, R., Grossner, U., and Javanainen, A., Impact of Terrestrial Neutrons on the Reliability of SiC VD-MOSFET Technologies; *TNS May 2021 634-641*
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- McPherson, J.A.**, Hitchcock, C.W., Paul Chow, T., Ji, W., and Woodworth, A.A., Ion-Induced Mesoplasma Formation and Thermal Destruction in 4H-SiC Power MOSFET Devices; *TNS May 2021 651-658*
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- Mele, F.**, see Sammartini, M., *TNS Jan. 2021 70-75*
- Mele, F.**, Gandola, M., and Bertuccio, G., SIRIO: A High-Speed CMOS Charge-Sensitive Amplifier for High-Energy-Resolution X- γ Ray Spectroscopy With Semiconductor Detectors; *TNS March 2021 379-383*
- Mele, F.**, Quercia, J., and Bertuccio, G., Analytical Model of the Discharge Transient in Pulsed-Reset Charge-Sensitive Amplifiers; *TNS July 2021 1511-1518*
- Mele, F.**, Dedolli, I., Gandola, M., Grassi, M., Malcovati, P., Amati, L., Bellutti, P., Borghi, G., Campana, R., Demenev, E., Ficorella, F., Fiorini, M., Frontera, F., Fuschino, F., Labanti, C., Marchesini, E., Picciotto, A., Rachevski, A., Rashevskaya, I., Virgilli, E., Zampa, G., Zampa, N., Zorzi, N., Vacchi, A., and Bertuccio, G., ORION, a Multichip Readout Electronics for Satellite Wide Energy Range X- γ -Ray Imaging Spectroscopy: Design and Characterization of the Analog Section; *TNS Dec. 2021 2801-2809*
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- Mendes, E.**, Baron, S., Soos, C., and Vasey, F., A Timing, Trigger, and Control System With Picosecond Precision Based on 10 Gbit/s Passive Optical Networks for High-Energy Physics; *TNS April 2021 447-457*
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- Moita, M.**, Curado da Silva, R.M., Maia, J.M., Caroli, E., Virgilli, E., Auricchio, N., Stephen, J.B., Frontera, F., and del Sordo, S., Polarimetry With a Multilayer CdTe Prototype for Soft Gamma-Ray Astrophysics; *TNS Nov. 2021 2655-2660*
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- Morana, A.**, Campanella, C., Marin, E., Melin, G., Robin, T., Li Vecchi, G., Di Francesca, D., Boukenter, A., Ouerdane, Y., Mady, F., Benabdesselam, M., Mekki, J., Balcon, N., and Girard, S., Operating Temperature Range of Phosphorous-Doped Optical Fiber Dosimeters Exploiting Infrared Radiation-Induced Attenuation; *TNS May 2021 906-912*
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- Morana, A.**, see Kerboub, N., *TNS Aug. 2021 1782-1787*
- Morand, S.**, Binois, C., de Fleurieu, H.C., Carvalho, A., Samaras, A., Clatworthy, T., Kruckmeyer, K., Marin, M., Mangeret, R., Salvaterra, G., and Staerk, D., Simultaneous Single-Event Transient (SET) Observation on LM139A Wired-and Comparator Circuit; *TNS June 2021 1279-1285*
- Moreau, S.**, see Toguchi, S., *TNS May 2021 707-715*
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- Mori, F.**, Ebara, M., Tsukita, Y., Furuta, J., and Kobayashi, K., Intrinsic Vulnerability to Soft Errors and a Mitigation Technique by Layout Optimization on DICE Flip Flops in a 65-nm Bulk Process; *TNS Aug. 2021 1727-1735*
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- Morrocchi, M.**, Belcari, N., Bianucci, S., Camarlinghi, N., Carra, P., Ciarrocchi, E., De Simoni, M., Del Guerra, A., Fischetti, M., Francesconi, M., Galli, L., Kraan, A.C., Mirabelli, R., Moggi, A., Muraro, S., Profeti, A., Pullia, M., Rosso, V., Sarti, A., Sportelli, G., Traini, G., Zarrella, R., and Bisogni, M.G., Performance Evaluation of the TOF-Wall Detector of the FOOT Experiment; *TNS May 2021 1161-1168*
- Morsani, F.**, see Nicolo, D., *TNS Nov. 2021 2630-2636*
- Morton, A.J.**, see Carson, M., *TNS March 2021 292-304*
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- Mu, X.**, Shi, R., Luo, G., Tuo, X., and Zheng, H., High Spatial Resolution Tomographic Gamma Scanning Reconstruction With Improved MLEM Iterative Algorithm Based on Split Bregman Total Variation Regularization; *TNS Dec. 2021 2762-2770*
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- Muthuseenu, K.**, Barnaby, H.J., Galloway, K.F., Koziukov, A.E., Maksimenko, T.A., Vyrostkov, M.Y., Bu-Khasan, K.B., Kalashnikova, A.A., and Privat, A., Analysis of SEGR in Silicon Planar Gate Super-Junction Power MOSFETs; *TNS May 2021 611-616*
- Myllenbeck, N.R.**, Carlson, J.S., Hunter, M.A., Tran, H.M., Benin, A.I., and Feng, P.L., Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene; *TNS Sept. 2021 2400-2406*
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- Nakao, M.**, Itoh, R., Yamada, S., Suzuki, S.Y., Konno, T., Zhou, Q., Kunigo, T., Sugiura, R., Park, S., Liu, Z., Zhao, J., Konorov, I., Levit, D., Nakamura, K., Tanigawa, H., Taniguchi, N., Uchida, T., Nishimura, K., Hartbrich, O., Lai, Y., Shoji, M., Kuzmin, A., Zhulanov, V., Kunkler, B., Mostafanezhad, I., Nakazawa, H., and Unno, Y., Performance of the Unified Readout System of Belle II; *TNS Aug. 2021 1826-1832*
- Nakao, M.**, see Zhou, Q.D., *TNS Aug. 2021 1818-1825*
- Nakasuga, S.**, see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Nakazawa, H.**, see Nakao, M., *TNS Aug. 2021 1826-1832*
- Nakazawa, Y.**, see Dekkers, S., *TNS Aug. 2021 2020-2027*
- Nakazawa, Y.**, Fujii, Y., Ikeno, M., Kuno, Y., Lee, M., Mihara, S., Shoji, M., Uchida, T., Ueno, K., and Yoshida, H., An FPGA-Based Trigger System With Online Track Recognition in COMET Phase-I; *TNS Aug. 2021 2028-2034*
- Nam, S.H.**, see Teh, F.C.E., *TNS Aug. 2021 2294-2300*
- Nan, Y.C.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Napiersalski, A.**, see Klys, K., *TNS Aug. 2021 2132-2139*
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- Negri, A.**, see Sottocornola, S., *TNS Aug. 2021 2051-2058*
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- Negut, V.**, see Hecla, J., *TNS Oct. 2021 2539-2549*

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Ngom, C., Pouget, V., Zerarka, M., Cocchetti, F., Touboul, A., Matmat, M., Crepel, O., Jonathas, S., and Bascoul, G., Backside Laser Testing of Single-Event Effects in GaN-on-Si Power HEMTs; *TNS Aug. 2021 1642-1650*
Nichols, D.R., see Rice, W.C., *TNS May 2021 890-896*
Nicolo, D., Baldini, A.M., Bemporad, C., Cei, F., Chiappini, M., Francesconi, M., Galli, L., Grassi, M., Iwamoto, T., Morsani, F., Papa, A., Sawada, R., and Signorelli, G., Real-Time Particle Identification in Liquid Xenon; *TNS Nov. 2021 2630-2636*
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Niskanen, K., Coq Germanicus, R., Michez, A., Wrobel, F., Boch, J., Saigne, F., and Touboul, A.D., Neutron-Induced Failure Dependence on Reverse Gate Voltage for SiC Power MOSFETs in Atmospheric Environment; *TNS Aug. 2021 1623-1632*
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Orita, T., Yabu, G., Yoneda, H., Takeda, S., Caradonna, P., Takahashi, T., Watanabe, S., Uchida, Y., Moriyama, F., Sugawara, H., Uenomachi, M., and Shimazoe, K., Double-Photon Emission Imaging With High-Resolution Si/CdTe Compton Cameras; *TNS Aug. 2021 2279-2285*

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Ouyang, X., see Gao, R., *TNS May 2021 1169-1174*
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Pande, N., Kumar, S., Everson, L.R., Park, G., Ahmed, I., and Kim, C.H., Neutron-Induced Pulsewidth Distribution of Logic Gates Characterized Using a Pulse Shrinking Chain-Based Test Structure; *TNS Dec. 2021 2736-2747*
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- Park, J.**, see Ryu, J., *TNS Nov. 2021 2670-2681*
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- Pechousek, J.**, see Kohout, P., *TNS Aug. 2021 1869-1875*
- Pedreschi, E.**, see Gioiosa, A., *TNS Aug. 2021 1862-1868*
- Pei, Z.Y.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Pellish, J.A.**, see Campola, M.J., *TNS May 2021 1002-1007*
- Pena-Fernandez, M.**, Lindoso, A., Entrena, L., Lopes, I., and Pouget, V., Microprocessor Error Diagnosis by Trace Monitoring Under Laser Testing; *TNS Aug. 2021 1651-1659*
- Pendina, G.D.**, see Coi, O., *TNS May 2021 588-596*
- Pendina, G.D.**, see Coi, O., *TNS Aug. 2021 1533-1541*
- Peng, C.**, see Chen, Z., *TNS Feb. 2021 118-123*
- Peng, C.**, En, Y., Lei, Z., Gao, R., Zhang, Z., He, Y., Chen, Y., and Huang, Y., Influence of Buried Oxide Si⁺ Implantation on TID and NBTI Effects for PDSOI MOSFETs; *TNS Feb. 2021 156-164*
- Peng, C.**, see Wan, P., *TNS June 2021 1258-1264*
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- Peng, S.**, see Yan, M., *TNS Aug. 2021 2096-2100*
- Peng, S.**, see Ma, L., *TNS Oct. 2021 2459-2463*
- Pengfei, H.**, Yiming, Z., Xinhao, W., Chuanyang, C., Hongxia, G., Xiangli, Z., Jinbin, W., and Xiaoping, O., Electron Irradiation Effect on Van Der Waals Transistor for High-Detectivity Near-Infrared Photodetectors; *TNS March 2021 318-324*
- Peracchi, S.**, James, B., Pagani, F., Pan, V., Vohradsky, J., Bolst, D., Prokopovich, D.A., Guatelli, S., Petasecca, M., Lerch, M.L.F., Lee, S.H., Inaniwa, T., Matsufuji, N., Povoli, M., Kok, A., Jackson, M., Squire, T., Rosenfeld, A.B., and Tran, L.T., Radiation Shielding Evaluation of Spacecraft Walls Against Heavy Ions Using Microdosimetry; *TNS May 2021 897-905*
- Perek, P.**, see Klys, K., *TNS Aug. 2021 2132-2139*
- Perpelitsa, D.V.**, see Aidala, C.A., *TNS Feb. 2021 173-181*
- Peretti, L.**, see Leombruni, O., *TNS Aug. 2021 2140-2145*
- Perez-Celis, A.**, Thurlow, C., and Wirthlin, M., Emulating Radiation-Induced Multicell Upset Patterns in SRAM FPGAs With Fault Injection; *TNS Aug. 2021 1594-1599*
- Perez-Celis, A.**, Thurlow, C., and Wirthlin, M., Identifying Radiation-Induced Micro-SEFIs in SRAM FPGAs; *TNS Oct. 2021 2480-2487*
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- Plana, B.G.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
- Platt, S.P.**, August, S., MacLeod, M., Anderson, M.J., Cheneler, D., and Monk, S.D., Thermal Neutron Absorption in Printed Circuit Boards; *TNS April 2021 463-469*
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- Poivey, C.**, see Vlagkoulis, V., *TNS Jan. 2021 36-45*
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- Poon, A.W.P.**, see Abgrall, N., *TNS March 2021 359-367*
- Porro, M.**, Andricek, L., Aschauer, S., Castoldi, A., Donato, M., Engelke, J., Erdinger, F., Fiorini, C., Fischer, P., Graafma, H., Grande, A., Guazzoni, C., Hansen, K., Hauf, S., Kalavakuru, P., Klaer, H., Tangl, M., Kugel, A., Kuster, M., Lechner, P., Lomidze, D., Maffessanti, S., Manghisoni, M., Nidhi, S., Okrent, F., Re, V., Reckleben, C., Riceputi, E., Richter, R., Samartsev, A., Schlee, S., Soldat, J., Struder, L., Szymanski, J., Turcato, M., Weidenspointner, G., and Wunderer, C.B., The MiniSDD-Based 1-Mpixel Camera of the DSSC Project for the European XFEL; *TNS June 2021 1334-1350*
- Pouget, V.**, see Coronetti, A., *TNS May 2021 958-969*
- Pouget, V.**, see Pena-Fernandez, M., *TNS Aug. 2021 1651-1659*
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- Poujols, D.**, see Gaillardin, M., *TNS May 2021 928-936*
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- Prieto, A.F.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
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- Prior, S.A.**, see Kavetskiy, A., *TNS July 2021 1495-1504*
- Prior, S.A.**, see Kavetskiy, A., *TNS Oct. 2021 2550-2558*
- Pritchard, K.**, Chabot, J.P., Robucci, R., Choa, F.S., Osovizky, A., Ziegler, J., Binkley, E., Tsai, P., Hadad, N., Jackson, M., Hurlbut, C., Baltic, G.M., Majkrzak, C.F., and Maliszewskyj, N.C., Real-Time Signal Processing for Mitigating SiPM Dark Noise Effects in a Scintillating Neutron Detector; *TNS July 2021 1519-1527*
- Privat, A.**, Barnaby, H.J., Spear, M., Esposito, M., Manuel, J.E., Clark, L., Brunhaver, J., Duvnjak, A., Jokai, R., Holbert, K.E., McLain, M.L., Marinella, M.J., and King, M.P., Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies; *TNS May 2021 671-676*
- Privat, A.**, see Esposito, M.G., *TNS May 2021 724-732*
- Privat, A.**, see Muthuseenu, K., *TNS May 2021 611-616*

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Ren, Z., An, X., Li, G., Liu, J., Xun, M., Guo, Q., Zhang, X., and Huang, R., TID Response and Radiation-Enhanced Hot-Carrier Degradation in 65-nm nMOSFETs: Concerns on the Layout-Dependent Effects; *TNS Aug. 2021 1565-1570*
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- Rony, M.W.**, Samsel, I.K., Zhang, E.X., Sternberg, A., Li, K., Reaz, M., Austin, S.M., Alles, M.L., Linten, D., Mitard, J., Reed, R.A., Fleetwood, D.M., and Schrimpf, R.D., Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs; *TNS May 2021 807-814*
- Rony, M.W.**, Zhang, E.X., Reaz, M., Li, K., Daniel, A., Rax, B., Adell, P., Kaupila, J., Karsai, G., Holman, T., Reed, R.A., Witulski, A., and Schrimpf, R.D., A System-Level Modeling Approach for Simulating Radiation Effects in Successive-Approximation Analog-to-Digital Converters; *TNS July 2021 1465-1472*
- Rosenfeld, A.B.**, *see* Peracchi, S., *TNS May 2021 897-905*
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- Ruffenach, M.**, Bourdarie, S., Bergmann, B., Gohl, S., Mekki, J., and Vaille, J., A New Technique Based on Convolutional Neural Networks to Measure the Energy of Protons and Electrons With a Single Timepix Detector; *TNS Aug. 2021 1746-1753*
- Ruffolo, D.**, *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Ryder, K.L.**, Ryder, L.D., Sternberg, A.L., Kozub, J.A., Zhang, E.X., LaLumondiere, S.D., Monahan, D.M., Bonsall, J.P., Khachatryan, A., Buchner, S.P., McMorrow, D., Hales, J.M., Zhao, Y., Wang, L., Wang, C., Weller, R.A., Schrimpf, R.D., Weiss, S.M., and Reed, R.A., Comparison of Single-Event Transients in an Epitaxial Silicon Diode Resulting From Heavy-Ion-, Focused X-Ray-, and Pulsed Laser-Induced Charge Generation; *TNS May 2021 626-633*
- Ryder, K.L.**, *see* Smith, M.B., *TNS May 2021 1008-1013*
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- Ryder, L.D.**, *see* Ryder, K.L., *TNS May 2021 626-633*
- Ryder, L.D.**, Ryder, K.L., Sternberg, A.L., Kozub, J.A., Zhang, E.X., Linten, D., Croes, K., Weller, R.A., Schrimpf, R.D., Weiss, S.M., and Reed, R.A., Single-Event Transient Response of Vertical and Lateral Waveguide-Integrated Germanium Photodiodes; *TNS May 2021 801-806*
- Ryder, L.D.**, Ryder, K.L., Sternberg, A.L., Kozub, J.A., Khachatryan, A., Buchner, S.P., McMorrow, D., Hales, J.M., Zhao, Y., Wang, L., Wang, C., Weller, R.A., Schrimpf, R.D., Weiss, S.M., and Reed, R.A., Simulation of Pulsed-Laser-Induced Testing in Microelectronic Devices; *TNS Oct. 2021 2496-2507*
- Ryu, J.**, Park, C., Park, J., Cho, N., Park, J., and Cho, G., Development of Neural Network Model With Explainable AI for Measuring Uranium Enrichment; *TNS Nov. 2021 2670-2681*

S

- Sabatier, C.**, Aubry, M., Mescia, L., Morana, A., Melin, G., Robin, T., Marin, E., Girard, S., Ouerdane, Y., and Boukenter, A., Distributed Temperature and Strain Fiber-Based Sensing in Radiation Environment; *TNS Aug. 2021 1675-1680*
- Sabir, A.**, Michaelson, D., and Jiang, J., Load-Frequency Control With Multimodule Small Modular Reactor Configuration: Modeling and Dynamic Analysis; *TNS July 2021 1367-1380*
- Saggese, P.**, *see* Marini, F., *TNS Aug. 2021 1952-1960*
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- Saiz, A.**, *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Sakamoto, K.**, Baba, S., Kobayashi, D., Okamoto, S., Shindou, H., Kawasaki, O., Makino, T., Mori, Y., Matuura, D., Kusano, M., Narita, T., Ishii, S., and Hirose, K., Investigation of Buried-Well Potential Perturbation Effects on SEU in SOI DICE-Based Flip-Flop Under Proton Irradiation; *TNS June 2021 1222-1227*
- Sakib, S.**, Raquibuzzaman, M., Wasiolek, M., Hattar, K., and Ray, B., Total Ionizing Dose Effects on Physical Unclonable Function From NAND Flash Memory; *TNS July 2021 1445-1453*
- Sako, H.**, *see* Takahashi, T., *TNS Aug. 2021 1907-1911*
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- Samartsev, A.**, *see* Porro, M., *TNS June 2021 1334-1350*
- Sammartini, M.**, Gandola, M., Mele, F., Garavelli, B., Macera, D., Pozzi, P., and Bertuccio, G., X-ray Spectroscopy With a CdTe Pixel Detector and SIRIO Pre-amplifier at Deep Submicrosecond Signal-Processing Time; *TNS Jan. 2021 70-75*
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- Santurio, E.V.**, Silverstein, S., Bohm, C., Dunne, K., Lee, S., and Motzkau, H., A Revised Version of the ATLAS Tile Calorimeter Link Daughterboard for the HL-LHC; *TNS Sept. 2021 2414-2420*
- Saponara, S.**, *see* Monda, D., *TNS Oct. 2021 2524-2532*
- Saran, V.**, *see* Dayani, P., *TNS Dec. 2021 2702-2710*
- Sardet, A.**, Perot, B., Carasco, C., Sannie, G., Moretto, S., Nebbia, G., Fontana, C., and Pino, F., Performances of C-BORD's Tagged Neutron Inspection System for Explosives and Illicit Drugs Detection in Cargo Containers; *TNS March 2021 346-353*
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- Sato, S.**, Uenomachi, M., and Shimazoe, K., Development of Multichannel High Time Resolution Data Acquisition System for TOT-ASIC; *TNS Aug. 2021 1801-1806*
- Sato, S.**, see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Saurel, N.**, see Clement, A., *TNS Sept. 2021 2342-2349*
- Sauter, O.**, see Vu, T., *TNS Aug. 2021 1855-1861*
- Sauveplane, J.**, Dufour, A., Marcault, E., Orsatelli, M., Duran, G., Burky, J., Forgerit, B., Tilhac, F., and Guerre, F., Heavy-Ion Testing Method and Results of Normally OFF GaN-Based High-Electron-Mobility Transistor; *TNS Oct. 2021 2488-2495*
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- Schrimpf, R.D.**, see Toguchi, S., *TNS May 2021 707-715*
- Schrimpf, R.D.**, see Wilcox, E.P., *TNS May 2021 835-841*
- Schrimpf, R.D.**, see Gorchichko, M., *TNS May 2021 687-696*
- Schrimpf, R.D.**, see Ryder, L.D., *TNS May 2021 801-806*
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- Segkos, N.**, see Vlagkoulis, V., *TNS Jan. 2021 36-45*
- Segmanovic, F.**, Meinhardt, G., Roger, F., Jonak-Auer, I., and Suligoj, T., Evaluation of the Radiation Hardness of Photodiodes in 180-nm CMOS Technology for Medical Applications; *TNS Sept. 2021 2367-2374*
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- Serafini, A.**, see Marini, F., *TNS Aug. 2021 1952-1960*
- Sgro, C.**, see Barbanera, M., *TNS May 2021 1144-1151*
- Shah, N.P.**, Marleau, P., Fessler, J.A., Chichester, D.L., and Wehe, D.K., Improved Localization Precision and Angular Resolution of a Cylindrical, Time-Encoded Imaging System From Adaptive Detector Movements; *TNS April 2021 410-425*
- Shanks, B.**, see Abgrall, N., *TNS March 2021 359-367*
- Shanks, K.S.**, Philipp, H.T., Weizeorick, J.T., Hammer, M., Tate, M.W., Hu, H., Purohit, P., Baldwin, J.D., Miceli, A., Thom-Levy, J., and Gruner, S.M., Characterization of a Small-Scale Prototype Detector With Wide Dynamic Range for Time-Resolved High-Energy X-Ray Applications; *TNS Dec. 2021 2753-2761*
- Shao, L.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Shao, M.**, see Wu, B., *TNS April 2021 470-476*
- Shao, T.**, see Yu, P., *TNS April 2021 458-462*
- Shawkat, M.S.A.**, Hasan, M.S., and Mcfarlane, N., Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers; *TNS March 2021 279-291*
- Shayduk, M.**, see Dazzi, F., *TNS July 2021 1473-1486*
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- Shi, R.**, see Mu, X., *TNS Dec. 2021 2762-2770*
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- Shima, T.**, see Viet, N.V.H., *TNS Feb. 2021 203-210*
- Shimazoe, K.**, see Sato, S., *TNS Aug. 2021 1801-1806*
- Shimazoe, K.**, see Orita, T., *TNS Aug. 2021 2279-2285*
- Shimizu, H.**, see Baba, H., *TNS Aug. 2021 1841-1848*
- Shimjith, S.R.**, see Vajpayee, V., *TNS July 2021 1381-1398*
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- Shin, D.**, see Kwon, I., *TNS Aug. 2021 2202-2209*
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- Shoji, M.**, see Nakao, M., *TNS Aug. 2021 1826-1832*
- Shoji, M.**, see Nakazawa, Y., *TNS Aug. 2021 2028-2034*
- Shoji, M.**, see Giordano, R., *TNS Dec. 2021 2810-2817*
- Shulga, E.**, Zakharov, V., Garg, P., Hemmick, T.K., and Milov, A., Measurement of the Ion Blocking by the Passive Bipolar Grid; *TNS Jan. 2021 59-69*
- Shurley, A.J.**, see Marshall, M.R., *TNS Feb. 2021 189-202*
- Shy, D.**, Chen, Z., Fessler, J.A., and He, Z., Filtered Backprojection in Compton Imaging Using a Spherical Harmonic Wiener Filter With Pixelated CdZnTe; *TNS Feb. 2021 211-219*
- Sicard, A.**, see Inguibert, C., *TNS Aug. 2021 1754-1763*
- Sickles, A.M.**, see Aidala, C.A., *TNS Feb. 2021 173-181*
- Sidler, D.**, see Karkour, N., *TNS Aug. 2021 2005-2011*
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- Sipos, R.**, see Abud, A.A., *TNS Aug. 2021 2159-2164*
- Sirignano, C.**, see Marini, F., *TNS Aug. 2021 1952-1960*
- Sisti, M.**, see Marini, F., *TNS Aug. 2021 1952-1960*
- Sitarek, J.**, see Dazzi, F., *TNS July 2021 1473-1486*
- Skoufis, M.**, see Cannon, M., *TNS May 2021 980-990*
- Sleator, C.C.**, Philips, B.F., Christophersen, M., Li, S., and Carini, G., A Custom Low-Noise Silicon Photodiode Detector Designed for Use With X-Ray Capillary Optics; *TNS Aug. 2021 2249-2256*
- Smith, C.**, see Aidala, C.A., *TNS Feb. 2021 173-181*
- Smith, M.B.**, Witulski, A.F., Kauppila, J.S., Sternberg, A.L., Ryder, K.L., Mahadevan, N., and Schrimpf, R.D., Modeling COTS System TID Response With Monte Carlo Sampling and Transistor Swapping Experiments; *TNS May 2021 1008-1013*
- Snoch, A.**, see Hennessy, K., *TNS Oct. 2021 2472-2479*
- Soderstrom, D.**, Luza, L.M., Kettunen, H., Javanainen, A., Farabolini, W., Gilardi, A., Coronetti, A., Poivey, C., and Dilillo, L., Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment; *TNS May 2021 716-723*
- Soderstrom, D.**, see Coronetti, A., *TNS May 2021 958-969*
- Soderstrom, D.**, see Coronetti, A., *TNS Aug. 2021 1613-1622*
- Sokolov, A.**, Kondratjev, V., Nurgalejev, R., Gostilo, V., Brudanin, V., Ponomarev, D., Rozov, S., and Yakushev, E., Segmented HPGe Detector for Nuclear Reactions Research; *TNS Jan. 2021 54-58*
- Soldat, J.**, see Porro, M., *TNS June 2021 1334-1350*
- Soliman, N.S.**, see Ibrahim, M.A., *TNS Aug. 2021 2232-2238*
- Sommer, M.**, Krist, P., Kakona, M., and Ploc, O., Novel Model for Analysis and Optimization of Silicon Photomultiplier-Based Scintillation Systems; *TNS Dec. 2021 2771-2778*

- Song, C.X.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Song, H.C.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Song, K.**, see Song, S., *TNS Aug. 2021 2066-2073*
- Song, K.**, see Zhong, K., *TNS Aug. 2021 1920-1926*
- Song, L.**, see Ma, B., *TNS Feb. 2021 110-117*
- Song, S.**, Song, K., Xu, T., Zhou, W., Li, H., and Liu, W., The Electronics Design of Real-Time Feedback Control System in KTX; *TNS Aug. 2021 2066-2073*
- Song, S.**, Chen, H., Yu, X., Chen, A., Shi, W., Zou, H., and Ye, Y., Variation of Permittivity and Dark Conductivity of Polyimide and FR4 With Electron Dose by Experiments; *TNS Sept. 2021 2375-2382*
- Song, S.**, see Liu, J., *TNS Dec. 2021 2717-2723*
- Song, Z.**, see Deng, W., *TNS Aug. 2021 1937-1943*
- Song, Z.**, see Chen, X., *TNS Oct. 2021 2533-2538*
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- Soto-Oton, J.**, see Belver, D., *TNS Sept. 2021 2334-2341*
- Sottocornola, S.**, Annovi, A., Biesuz, N.V., Brost, E., Calveti, M., Gentsos, C., Holmes, T., Horyn, L., Iizawa, T., Lanza, A., Long, J.D., Mastrandrea, P., Maznas, I., Negri, A., Calabro, D., Piendibene, M., Roda, C., Romano, E., and Seiss, T., Cooling and Timing Tests of the ATLAS Fast TracKer VME Boards; *TNS Aug. 2021 2051-2058*
- Sousa, R.**, see Coi, O., *TNS May 2021 588-596*
- Spear, M.**, see Privat, A., *TNS May 2021 671-676*
- Spinella, F.**, see Gioiosa, A., *TNS Aug. 2021 1862-1868*
- Spiropulu, M.**, see Hu, C., *TNS June 2021 1244-1250*
- Spiwoks, R.**, Armbruster, A., Czodrowski, P., Ellis, N., Farthouat, P., Haas, S., Kulinska, A., Marzin, A., Papageorgiou, P., Pauly, T., Perrella, S., Saimpert, M., Vichoudis, P., and Wengler, T., CentOS Linux for the ATLAS MUCTPI Upgrade; *TNS Aug. 2021 2127-2131*
- Sportelli, G.**, see Morrocchi, M., *TNS May 2021 1161-1168*
- Squire, T.**, see Peracchi, S., *TNS May 2021 897-905*
- Staerk, D.**, see Morand, S., *TNS June 2021 1279-1285*
- Stanco, L.**, see Marini, F., *TNS Aug. 2021 1952-1960*
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- Sternberg, A.L.**, see Cannon, J.M., *TNS May 2021 815-822*
- Sternberg, A.L.**, see Smith, M.B., *TNS May 2021 1008-1013*
- Sternberg, A.L.**, see Ryder, L.D., *TNS May 2021 801-806*
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- Stoll, S.**, see Aidala, C.A., *TNS Feb. 2021 173-181*
- Stortini, M.J.**, see Abgrall, N., *TNS March 2021 359-367*
- Stoykov, A.**, and Rostomyan, T., Time Resolution of BC422 Plastic Scintillator Read Out by a SiPM; *TNS July 2021 1487-1494*
- Strati, V.**, see Marini, F., *TNS Aug. 2021 1952-1960*
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- Sun, Q.**, see Xu, J., *TNS Aug. 2021 1993-1997*
- Sun, Q.**, see Huang, X., *TNS Aug. 2021 1998-2004*
- Sun, Q.**, see Liu, J., *TNS Dec. 2021 2717-2723*
- Sun, Q.N.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Sun, X.**, Abshire, J.B., Lauenstein, J., Babu, S.R., Beck, J.D., Sullivan, W.W., and Hubbs, J.E., Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors; *TNS Jan. 2021 27-35*
- Sun, X.**, see Aidala, C.A., *TNS Feb. 2021 173-181*
- Sun, X.**, see Zhang, W., *TNS Aug. 2021 1984-1992*
- Sun, X.**, see Zhang, H., *TNS Aug. 2021 2081-2087*
- Sun, X.**, see Yang, H., *TNS Dec. 2021 2794-2800*
- Sun, X.N.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Sun, Z.**, see Wang, T., *TNS Feb. 2021 101-109*
- Sun, Z.**, see Yuan, J., *TNS Aug. 2021 1849-1854*
- Sun, Z.B.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Surendranathan, U.**, Kumari, P., Wasiolek, M., Hattar, K., Boykin, T., and Ray, B., Gamma-Ray-Induced Error Pattern Analysis for MLC 3-D NAND Flash Memories; *TNS May 2021 733-739*
- Surendranathan, U.**, see Kumari, P., *TNS May 2021 1032-1039*
- Suzuki, K.**, see Khai, B.T., *TNS March 2021 368-378*
- Suzuki, K.**, see Takahashi, T., *TNS Aug. 2021 1907-1911*
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- Szymanski, J.**, see Porro, M., *TNS June 2021 1334-1350*

T

- Tabata, K.**, see Takagi, K., *TNS Sept. 2021 2435-2439*
- Takagi, K.**, Toyoda, K., Kase, H., Takagi, T., Tabata, K., Terao, T., Morii, H., Koike, A., Aoki, T., Nogami, M., and Hitomi, K., Bias Polarity Switching-Type TlBr X-Ray Imager; *TNS Sept. 2021 2435-2439*
- Takagi, T.**, see Takagi, K., *TNS Sept. 2021 2435-2439*
- Takahashi, H.**, see Tamura, F., *TNS Aug. 2021 2043-2050*
- Takahashi, T.**, Aoki, K., Ashikaga, S., Chang, W., Hamada, E., Honda, R., Ichikawa, M., Ikeno, M., Kajikawa, S., Kanno, K., Kawama, D., Kondo, T., Lin, C., Lin, C., Morino, Y., Murakami, T., Nakai, W., Nakasuga, S., Naruki, M., Obara, Y., Ozawa, K., Sako, H., Sato, S., Sendai, H., Suzuki, K., Takaura, Y., Tanaka, M., Uchida, T., and Yokkaichi, S., Data Acquisition System in the First Commissioning Run of the J-PARC E16 Experiment; *TNS Aug. 2021 1907-1911*
- Takahashi, T.**, see Orita, T., *TNS Aug. 2021 2279-2285*
- Takahisa, K.**, see Viet, N.V.H., *TNS Feb. 2021 203-210*
- Takaishi, R.**, see Viet, N.V.H., *TNS Feb. 2021 203-210*
- Takashima, T.**, see Ueno, H., *TNS Aug. 2021 1764-1771*
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- Tam, P.H.T.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Tamagawa, Y.**, see Khai, B.T., *TNS March 2021 368-378*
- Tampo, M.**, see Kato, T., *TNS July 2021 1436-1444*
- Tamura, F.**, Takahashi, H., Kamikubota, N., Ito, Y., and Hayashi, N., Development of Next-Generation Timing System for the Japan Proton Accelerator Research Complex; *TNS Aug. 2021 2043-2050*
- Tan, C.M.**, see Pandey, V.K., *TNS June 2021 1319-1324*
- Tan, M.**, see Zhen, Z., *TNS Sept. 2021 2358-2366*
- Tanaka, H.**, see Kato, T., *TNS July 2021 1436-1444*
- Tanaka, M.**, see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Tanaka, M.M.**, see Kishishita, T., *TNS Dec. 2021 2787-2793*
- Tanaka, Y.**, see Kishishita, T., *TNS Dec. 2021 2787-2793*
- Tang, G.**, Li, M., Sun, P., Wang, L., Peng, K., Zhang, J., Feng, P., and Wei, B., A Charge Collection Equivalent Method for Laser Simulation of Dose Rate Effects With Improved Performance; *TNS June 2021 1235-1243*
- Tang, J.**, see Pan, Z., *TNS Sept. 2021 2407-2413*
- Tang, L.**, see Huang, L., *TNS Aug. 2021 2239-2248*
- Tang, M.**, see Chen, Z., *TNS June 2021 1272-1278*
- Tang, S.**, see Bonini, F., *TNS Sept. 2021 2421-2428*
- Tang, Y.**, Townsend, T., Deng, H., Liu, Y., Zhang, R., and Chen, J., A Highly Linear FPGA-Based TDC and a Low-Power Multichannel Readout ASIC With a Shared SAR ADC for SiPM Detectors; *TNS Aug. 2021 2286-2293*
- Tang, Z.B.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Tangl, M.**, see Porro, M., *TNS June 2021 1334-1350*
- Tanigawa, H.**, see Nakao, M., *TNS Aug. 2021 1826-1832*
- Taniguchi, N.**, see Nakao, M., *TNS Aug. 2021 1826-1832*
- Tate, M.W.**, see Shanks, K.S., *TNS Dec. 2021 2753-2761*
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- Tedeschi, D.**, see Abgrall, N., *TNS March 2021 359-367*
- Teh, F.C.E.**, Lee, J., Zhu, K., Brown, K.W., Chajecski, Z., Lynch, W.G., Tsang, M.B., Anthony, A., Barney, J., Dell'Aquila, D., Estee, J., Hong, B., Jhang, G., Khanal, O.B., Kim, Y.J., Lee, H.S., Lee, J.W., Manfredi, J., Nam, S.H., Niu, C.Y., Park, J.H., Sweany, S., Tsang, C.Y., Wang, R., Wu, H., Value-Assigned Pulse Shape Discrimination for Neutron Detectors; *TNS Aug. 2021 2294-2300*
- Teng, J.W.**, see Tzintzarov, G.N., *TNS May 2021 785-792*
- Teng, J.W.**, Ildefonso, A., Tzintzarov, G.N., Ying, H., Moradina, A., Wang, P.F., Li, X., Zhang, E.X., Fleetwood, D.M., and Cressler, J.D., Variability in Total-Ionizing-Dose Response of Fourth-Generation SiGe HBTs; *TNS May 2021 949-957*
- Terao, T.**, see Takagi, K., *TNS Sept. 2021 2435-2439*
- Termo, G.**, see Borghello, G., *TNS May 2021 573-580*
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- Thery, T.**, see de Boissac, C.L., *TNS Jan. 2021 21-26*
- Thery, T.**, Gasiot, G., Malherbe, V., Autran, J., and Roche, P., TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET; *TNS May 2021 603-610*
- Thom-Levy, J.**, see Shanks, K.S., *TNS Dec. 2021 2753-2761*
- Thomopoulos, A.**, see Dayani, P., *TNS Dec. 2021 2702-2710*
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- Thurlow, C.**, see Perez-Celis, A., *TNS Oct. 2021 2480-2487*
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- Toccafondo, I.**, see Blanc, J., *TNS July 2021 1407-1413*
- Toda, A.**, see Kishimoto, S., *TNS Feb. 2021 165-172*
- Toguchi, S.**, Zhang, E.X., Fleetwood, D.M., Schrimpf, R.D., Reed, R.A., Moreau, S., Cheramy, S., Batude, P., Brunet, L., Andrieu, F., and Alles, M.L., Charge Trapping and Transconductance Degradation in Irradiated 3-D Sequentially Integrated FDSOI MOSFETs; *TNS May 2021 707-715*
- Tokiyasu, A.O.**, see Baba, H., *TNS Aug. 2021 1841-1848*
- Tomitaka, M.**, see Ueno, H., *TNS Aug. 2021 1764-1771*
- Tonigan, A.M.**, Ball, D., Vizkelethy, G., Black, J., Black, D., Trippe, J., Bielejec, E., Alles, M.L., Reed, R., and Schrimpf, R.D., Impact of Surface Recombination on Single-Event Charge Collection in an SOI Technology; *TNS March 2021 305-311*
- Topkar, A.**, see Malarvizhi, S., *TNS June 2021 1296-1303*
- Torbert, H.A.**, see Kavetskiy, A., *TNS July 2021 1495-1504*
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- Torres, L.**, see Coi, O., *TNS Aug. 2021 1533-1541*
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- Tran, S.**, see Dazzi, F., *TNS July 2021 1473-1486*
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- Turcato, M.**, see Porro, M., *TNS June 2021 1334-1350*
- Turkoglu, D.J.**, and Chen-Mayer, H.H., Chopped Cold Neutron Beam Activation Analysis; *TNS July 2021 1505-1510*
- Tuve, C.**, see Marini, F., *TNS Aug. 2021 1952-1960*
- Tzintzarov, G.N.**, Ildefonso, A., Teng, J.W., Frounchi, M., Djikeng, A., Iyengar, P., Goley, P.S., Khachatrian, A., Hales, J., Bahr, R., Buchner, S.P., Memorow, D., and Cressler, J.D., Optical Single-Event Transients Induced in Integrated Silicon-Photonic Waveguides by Two-Photon Absorption; *TNS May 2021 785-792*
- Tzintzarov, G.N.**, see Teng, J.W., *TNS May 2021 949-957*

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- Uchida, T.**, see Hamada, E., *TNS Aug. 2021 1968-1975*
- Uchida, T.**, see Nakao, M., *TNS Aug. 2021 1826-1832*
- Uchida, T.**, see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Uchida, T.**, see Nakazawa, Y., *TNS Aug. 2021 2028-2034*
- Uchida, Y.**, see Orita, T., *TNS Aug. 2021 2279-2285*
- Ueno, H.**, Kamiya, K., Matsumoto, H., Tomitaka, M., and Takashima, T., On-Orbit Pile-Up Detection and Digital Pulse Shape Measurement Results in the Radiation Telescope; *TNS Aug. 2021 1764-1771*
- Ueno, K.**, see Hamada, E., *TNS Aug. 2021 1968-1975*
- Ueno, K.**, see Dekkers, S., *TNS Aug. 2021 2020-2027*
- Ueno, K.**, see Nakazawa, Y., *TNS Aug. 2021 2028-2034*
- Uenomachi, M.**, see Sato, S., *TNS Aug. 2021 1801-1806*
- Uenomachi, M.**, see Orita, T., *TNS Aug. 2021 2279-2285*

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Vacchi, A., *see* Mele, F., *TNS Dec. 2021 2801-2809*
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 Vajpayee, V., Becerra, V., Bausch, N., Deng, J., Shimjith, S.R., and Arul, A.J., *L₁-Adaptive Robust Control Design for a Pressurized Water-Type Nuclear Power Plant; TNS July 2021 1381-1398*
 Valentin, M.B., *see* Guglielmo, G.D., *TNS Aug. 2021 2179-2186*
 Valero, A., Operational Experience and Evolution of the ATLAS Tile Hadronic Calorimeter Read-Out Drivers; *TNS Aug. 2021 1807-1810*
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 Vichoudis, P., *see* Spiwoks, R., *TNS Aug. 2021 2127-2131*
 Viet, N.V.H., Nomachi, M., Takahisa, K., Shima, T., Khai, B.T., Takaishi, R., and Miyamoto, K., Pulse Shape Discrimination of CsI(Tl) With a Photomultiplier Tube and Multipixel Photon Counters; *TNS Feb. 2021 203-210*
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 Virmontois, C., *see* Coronetti, A., *TNS May 2021 958-969*
 Virmontois, C., Belloir, J.-M., Pistre, L., Patier, L., Gilard, O., Bardoux, A., Goiffon, V., Reverchon, J.-L., Colin, T., Berdin, E., and Saint-Pe, O., Dark Current Random Telegraph Signals in Short-Wavelength Infrared Image Sensors Based on InGaAs; *TNS May 2021 770-776*
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 Vlagkoulis, V., Sari, A., Vrachnis, J., Antonopoulos, G., Segkos, N., Psarakis, M., Tavoularis, A., Furano, G., Boatella Polo, C., Poivey, C., Ferlet-Cavrois, V., Kastriotou, M., Fernandez Martinez, P., Alia, R.G., Voss, K., and Schuy, C., Single Event Effects Characterization of the Programmable Logic of Xilinx Zynq-7000 FPGA Using Very/Ultra High-Energy Heavy Ions; *TNS Jan. 2021 36-45*
 Vogel, T., Kaiser, N., Petzold, S., Piro, E., Guillaume, N., Lefevre, G., Charpin-Nicolle, C., David, S., Vallee, C., Nowak, E., Trautmann, C., and Alff, L., Defect-Induced Phase Transition in Hafnium Oxide Thin Films: Compar-

ing Heavy Ion Irradiation and Oxygen-Engineering Effects; *TNS Aug. 2021 1542-1547*

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 Vu, T., Felici, F., Galperti, C., Maraschek, M., Pau, A., Rispoli, N., Sauter, O., and Sieglin, B., Integrated Real-Time Supervisory Management for Off-Normal-Event Handling and Feedback Control of Tokamak Plasmas; *TNS Aug. 2021 1855-1861*
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W

Wan, P., Yang, J., Ying, T., Lv, G., Lv, L., Dong, S., Dong, L., Yu, X., Zhen, Z., Li, W., and Li, X., Effects of Ionization and Displacement Damage in AlGaIn/GaN HEMT Devices Caused by Various Heavy Ions; *TNS June 2021 1265-1271*
 Wan, P., Yang, J., Lv, G., Lv, L., Dong, S., Li, W., Xu, X., Peng, C., Zhang, Z., and Li, X., Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGaIn/GaN HEMTs; *TNS June 2021 1258-1264*
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 Wang, G., *see* Wang, Y., *TNS Aug. 2021 1660-1667*
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 Wang, J., *see* Zhao, Y., *TNS Feb. 2021 92-100*
 Wang, J., Prinzie, J., Coronetti, A., Thys, S., Alia, R.G., and Leroux, P., Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS; *TNS May 2021 913-920*
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 Wang, J.S., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
 Wang, L., *see* Chen, Z., *TNS Feb. 2021 118-123*
 Wang, L., Xu, Y., Cao, X., Huang, J., Deng, S., Xu, N., and Chen, J., Diagonal 4-in ZnO Nanowire Cold Cathode Flat-Panel X-Ray Source: Preparation and Projection Imaging Properties; *TNS March 2021 338-345*
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- Wang, P.F., *see* Brewer, R.M., *TNS May 2021 677-686*
- Wang, P.F., *see* Li, K., *TNS May 2021 740-747*
- Wang, P.F., *see* Teng, J.W., *TNS May 2021 949-957*
- Wang, P.F., *see* Xiong, Y., *TNS Aug. 2021 1579-1584*
- Wang, Q., *see* Zhen, Z., *TNS Sept. 2021 2358-2366*
- Wang, R., *see* Teh, F.C.E., *TNS Aug. 2021 2294-2300*
- Wang, R.N., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Wang, S., *see* Ma, B., *TNS Feb. 2021 110-117*
- Wang, S., *see* Wang, H., *TNS April 2021 394-401*
- Wang, S., *see* Yang, H., *TNS Dec. 2021 2794-2800*
- Wang, T., Yang, J., Wang, H., Yu, H., Sun, Z., Zhang, L., and Liu, R., A Generic Streaming Software Platform Design for High-Energy Physics Data Acquisition Systems; *TNS Feb. 2021 101-109*
- Wang, T., *see* Luo, Y., *TNS May 2021 1111-1119*
- Wang, T., *see* Chen, Z., *TNS June 2021 1272-1278*
- Wang, W., Caselle, M., Boltz, T., Blomley, E., Brosi, M., Dritschler, T., Ebersoldt, A., Kopmann, A., Santamaria Garcia, A., Schreiber, P., Brundermann, E., Weber, M., Muller, A., and Fang, Y., Accelerated Deep Reinforcement Learning for Fast Feedback of Beam Dynamics at KARA; *TNS Aug. 2021 1794-1800*
- Wang, W., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Wang, W., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Wang, W., *see* Li, M., *TNS Aug. 2021 2309-2314*
- Wang, X., *see* Aidala, C.A., *TNS Feb. 2021 173-181*
- Wang, X., *see* Wang, Y., *TNS Feb. 2021 149-155*
- Wang, X., Min, D., Pan, S., Zheng, S., Hou, X., Wang, L., and Li, S., Coupling Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Solar Array Drive Assembly; *TNS July 2021 1399-1406*
- Wang, X., *see* Yuan, J., *TNS Aug. 2021 1849-1854*
- Wang, X., *see* Zhen, Z., *TNS Sept. 2021 2358-2366*
- Wang, X., *see* Zhu, T., *TNS Nov. 2021 2616-2623*
- Wang, X.G., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Wang, X.J., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Wang, X.Y., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Wang, Y., Zheng, X., Zhu, J., Cao, Y., Wang, X., Zhu, T., Lv, L., Mao, W., Wang, C., Ma, X., Li, P., Hua, N., Chen, K., Wang, M., Zhang, Q., and Hao, Y., Gamma-Irradiation-Accelerated Degradation in AlGaN-Based UVC LEDs Under Electrical Stress; *TNS Feb. 2021 149-155*
- Wang, Y., *see* Wang, H., *TNS April 2021 394-401*
- Wang, Y., *see* Wu, B., *TNS April 2021 470-476*
- Wang, Y., *see* Hu, Y., *TNS June 2021 1351-1358*
- Wang, Y., Liu, F., Li, B., Li, B., Huang, Y., Yang, C., Zhang, J., Wang, G., Luo, J., Han, Z., and Petrosyants, K.O., Dependence of Temperature and Back-Gate Bias on Single-Event Upset Induced by Heavy Ion in 0.2- μm DSOI CMOS Technology; *TNS Aug. 2021 1660-1667*
- Wang, Y., *see* Zhang, H., *TNS Aug. 2021 2081-2087*
- Wang, Y., *see* Fu, X., *TNS Oct. 2021 2452-2458*
- Wang, Y.D., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Wang, Y.J., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Wang, Y.P., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Wang, Z., *see* Wu, B., *TNS April 2021 470-476*
- Wang, Z., *see* Zhu, B., *TNS June 2021 1309-1318*
- Wang, Z., *see* Hu, Q., *TNS Aug. 2021 2101-2104*
- Wang, Z., *see* Yan, M., *TNS Aug. 2021 2096-2100*
- Wang, Z., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Wang, Z., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Wang, Z., *see* Ma, L., *TNS Oct. 2021 2459-2463*
- Wang, Z., *see* Ma, L., *TNS Oct. 2021 2459-2463*
- Wang, Z., *see* Li, H., *TNS Nov. 2021 2624-2629*
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- Wasiolek, M., *see* Surendranathan, U., *TNS May 2021 733-739*
- Wasiolek, M., *see* Kumari, P., *TNS May 2021 1032-1039*
- Wasiolek, M., *see* Sakib, S., *TNS July 2021 1445-1453*
- Watanabe, S., *see* Orita, T., *TNS Aug. 2021 2279-2285*
- Watanabe, Y., *see* Baba, H., *TNS Aug. 2021 1841-1848*
- Wauters, F., *see* Augustin, H., *TNS Aug. 2021 1833-1840*
- Webb, T.J., *see* Gao, X., *TNS July 2021 1454-1464*
- Weber, M., *see* Wang, W., *TNS Aug. 2021 1794-1800*
- Wehe, D.K., *see* Shah, N.P., *TNS April 2021 410-425*
- Wei, B., *see* Tang, G., *TNS June 2021 1235-1243*
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- Wei, W., *see* Ding, Y., *TNS Aug. 2021 2088-2095*
- Wei, W., *see* Li, H., *TNS Nov. 2021 2624-2629*
- Wei, Y., *see* Zhu, G., *TNS Jan. 2021 9-20*
- Wei, Y., *see* Zuo, Y., *TNS May 2021 1120-1128*
- Wei, Y., and Grudiev, A., Investigations Into X-Band Dielectric Assist Accelerating Structures for Future Linear Accelerators; *TNS May 2021 1062-1071*
- Wei, Y.J., *see* Aharonian, F., *TNS Aug. 2021 2257-2267*
- Weidenspointner, G., *see* Porro, M., *TNS June 2021 1334-1350*
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- Weller, R.A., *see* Ryder, L.D., *TNS May 2021 801-806*
- Weller, R.A., *see* Ryder, L.D., *TNS Oct. 2021 2496-2507*
- Wen, S., *see* D'Amico, J.V., *TNS May 2021 823-829*
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- White, B.R., *see* Abgrall, N., *TNS March 2021 359-367*
- Wiedner, D., *see* Augustin, H., *TNS Aug. 2021 1833-1840*
- Wiehe, M., Garcia, M.F., Moll, M., Montero, R., Palomo, F.R., Vila, I., Munoz-Marco, H., Otgon, V., and Perez-Millan, P., Development of a Tabletop Setup for the Transient Current Technique Using Two-Photon Absorption in Silicon Particle Detectors; *TNS Feb. 2021 220-228*
- Wieser, M., *see* Ciobanu, M., *TNS June 2021 1325-1333*
- Wilcox, E.P., Breeding, M.L., Casey, M.C., Pellish, J.A., Reed, R.A., Alles, M.L., and Schrimpf, R.D., Observation of Low-Energy Proton Direct Ionization in a 72-Layer 3-D NAND Flash Memory; *TNS May 2021 835-841*
- Wilcox, E.P., *see* Campola, M.J., *TNS May 2021 1002-1007*
- Wilhelm, A., *see* Fobar, D., *TNS Sept. 2021 2350-2357*
- Wilkerson, J.F., *see* Abgrall, N., *TNS March 2021 359-367*
- Will, M., *see* Dazzi, F., *TNS July 2021 1473-1486*
- Williams, M., *see* Hennessy, K., *TNS Oct. 2021 2472-2479*
- Wilson, A.E., Larsen, S., Wilson, C., Thurlow, C., and Wirthlin, M., Neutron Radiation Testing of a TMR VexRiscv Soft Processor on SRAM-Based FPGAs; *TNS May 2021 1054-1060*
- Wilson, C., *see* Wilson, A.E., *TNS May 2021 1054-1060*
- Windisch, D., Knodel, O., Juckeland, G., Hampel, U., and Bieberle, A., FPGA-Based Real-Time Data Acquisition for Ultrafast X-Ray Computed Tomography; *TNS Dec. 2021 2779-2786*
- Wirthlin, M., *see* Libano, F., *TNS May 2021 865-872*
- Wirthlin, M., *see* Wilson, A.E., *TNS May 2021 1054-1060*
- Wirthlin, M., *see* James, B., *TNS May 2021 1014-1022*
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- Wirthlin, M., *see* Perez-Celis, A., *TNS Oct. 2021 2480-2487*
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Wu, B., Wang, Y., Cao, Q., Li, Z., Li, X., Zhou, X., Hu, Y., Wang, Z., Shao, M., Liu, J., Li, C., and Zhao, Z., Design of Time-to-Digital Converters for Time-Over-Threshold Measurement in Picosecond Timing Detectors; *TNS April 2021 470-476*
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Xia, X., Hu, X., Mu, Y., and Zou, J., Dual-Energy Micro-CT Using GAGG:Ce and LYSO:Ce Scintillators; *TNS Feb. 2021 236-244*
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Xiangli, Z., see Pengfei, H., *TNS March 2021 318-324*
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Xiao, H.B., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Xiao, J., see Wang, H., *TNS April 2021 394-401*
Xiao, T.P., Bennett, C.H., Mancoff, F.B., Manuel, J.E., Hughart, D.R., Jacobs-Gedrim, R.B., Bielejec, E.S., Vizkelethy, G., Sun, J., Aggarwal, S., Arghavani, R., and Marinella, M.J., Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy; *TNS May 2021 581-587*
Xiao, T.P., see Esposito, M.G., *TNS May 2021 724-732*
Xiao, T.P., Bennett, C.H., Agarwal, S., Hughart, D.R., Barnaby, H.J., Puchner, H., Prabhakar, V., Talin, A.A., and Marinella, M.J., Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators; *TNS May 2021 762-769*
Xiao, T.P., see Alamdar, M., *TNS May 2021 665-670*
Xiaoping, O., see Pengfei, H., *TNS March 2021 318-324*
Xie, F., see Pan, Z., *TNS Sept. 2021 2407-2413*
Xie, H., see Zhu, G., *TNS Jan. 2021 9-20*
Xie, X., see Liu, C., *TNS Nov. 2021 2609-2615*
Xin, G.G., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Xin, L., see Guo, L., *TNS Dec. 2021 2711-2716*
Xin, Y.L., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Xing, Y., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Xinhao, W., see Pengfei, H., *TNS March 2021 318-324*
Xiong, Y., Feeley, A.T., Wang, P.F., Li, X., Zhang, E.X., Massengill, L.W., and Bhuvu, B.L., Supply Voltage Dependence of Ring Oscillator Frequencies for Total Ionizing Dose Exposures for 7-nm Bulk FinFET Technology; *TNS Aug. 2021 1579-1584*

Xu, D.L., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Xu, H., see Gu, J., *TNS Aug. 2021 2113-2120*
Xu, H., see Lu, J., *TNS Aug. 2021 1976-1983*
Xu, H., see Bonini, F., *TNS Sept. 2021 2421-2428*
Xu, J., see Chen, Z., *TNS June 2021 1272-1278*
Xu, J., Wu, J., Liu, T., Olsen, J.T., and Sun, Q., A New Scheme of Redundant Timing Crosschecking for Front-End Systems; *TNS Aug. 2021 1993-1997*
Xu, L., see D'Amico, J.V., *TNS May 2021 823-829*
Xu, L., see Ball, D.R., *TNS May 2021 830-834*
Xu, N., see Wang, L., *TNS March 2021 338-345*
Xu, R.X., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Xu, T., see Song, S., *TNS Aug. 2021 2066-2073*
Xu, W., see Abgrall, N., *TNS March 2021 359-367*
Xu, X., see Wan, P., *TNS June 2021 1258-1264*
Xu, Y., see Wang, L., *TNS March 2021 338-345*
Xu, Y., see Clerboux, B., *TNS Aug. 2021 2187-2193*
Xu, Z., Meng, C., Jiang, Y., Wu, P., and Zhang, M., A Code Verification for the Cavity SGEMP Simulation Code LASER-SGEMP; *TNS June 2021 1251-1257*
Xue, L., see Alamdar, M., *TNS May 2021 665-670*
Xue, L., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Xuechun, Y., see Haihang, Y., *TNS April 2021 477-482*
Xun, M., see Ren, Z., *TNS Aug. 2021 1565-1570*

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Yabu, G., see Orita, T., *TNS Aug. 2021 2279-2285*
Yakubova, G., see Kavetskiy, A., *TNS July 2021 1495-1504*
Yakubova, G., see Kavetskiy, A., *TNS Oct. 2021 2550-2558*
Yakushev, E., see Sokolov, A., *TNS Jan. 2021 54-58*
Yamada, S., see Nakao, M., *TNS Aug. 2021 1826-1832*
Yamada, S., see Zhou, Q.D., *TNS Aug. 2021 1818-1825*
Yamaguchi, H., see Hamada, E., *TNS Aug. 2021 1968-1975*
Yamamoto, S., Ninomiya, K., Kawamura, N., and Hirano, Y., 3-D Optical Imaging System of Muon Beams Using a Silver Activated Zinc Sulfide (ZnS(Ag)) Sheet Combined With a Mirror; *TNS Dec. 2021 2748-2752*
Yan, D., see Geng, X., *TNS Aug. 2021 2301-2308*
Yan, D.H., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Yan, M., see Ma, B., *TNS Feb. 2021 110-117*
Yan, M., Guo, H., Qian, S., Wang, Z., Zhang, Y., Ma, L., Wu, Q., Zhang, L., Hu, Q., and Peng, S., Preliminary Study on the Timing Characteristics of a Fast SiPM for the TOF of the Beam Line in IHEP; *TNS Aug. 2021 2096-2100*
Yan, X., see Dong, P., *TNS March 2021 312-317*
Yan, X., see Geng, X., *TNS Aug. 2021 2301-2308*
Yan, X.B., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Yan, Y., see Gu, J., *TNS Aug. 2021 2113-2120*
Yang, A., see Dayani, P., *TNS Dec. 2021 2702-2710*
Yang, C., see Zhu, B., *TNS June 2021 1309-1318*
Yang, C., see Wang, Y., *TNS Aug. 2021 1660-1667*
Yang, C.W., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Yang, F.F., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Yang, G., see Li, L., *TNS Aug. 2021 2220-2231*
Yang, H., see Zhang, H., *TNS Aug. 2021 2081-2087*
Yang, H., Zhang, H., Gao, C., Wang, H., Sun, X., Liu, J., Wang, S., Li, X., Ren, W., Zhou, W., He, R., Zhang, Y., Liao, J., Zhu, S., Lu, Y., Niu, X., Guo, J., and Zhao, C., Hi'Beam-S: A Monolithic Silicon Pixel Sensor-Based Prototype Particle Tracking System for HIAF; *TNS Dec. 2021 2794-2800*
Yang, J., see Zhu, G., *TNS Jan. 2021 9-20*
Yang, J., see Wang, T., *TNS Feb. 2021 101-109*
Yang, J., see Wan, P., *TNS June 2021 1265-1271*
Yang, J., see Wan, P., *TNS June 2021 1258-1264*
Yang, J.Y., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Yang, L.L., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Yang, M., see Zhang, Y., *TNS Nov. 2021 2574-2586*
Yang, M.J., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Yang, R.Z., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Yang, S.B., see Aharonian, F., *TNS Aug. 2021 2257-2267*
Yang, X., see Li, M., *TNS Aug. 2021 2309-2314*

- Yang, Y., see Clerbaux, B., *TNS Aug. 2021 2121-2126*
- Yang, Y., see Deng, W., *TNS Aug. 2021 1937-1943*
- Yang, Y., see Yuan, J., *TNS Aug. 2021 1849-1854*
- Yang, Y., see Clerbaux, B., *TNS Aug. 2021 2187-2193*
- Yang-Scharlotta, J., see Zink, B., *TNS May 2021 748-755*
- Yanyachi, P.R., see Argume, A., *TNS Aug. 2021 1933-1936*
- Yao, Y.H., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Yao, Z.G., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Ye, B., see Pan, Z., *TNS Sept. 2021 2407-2413*
- Ye, J., see Zhang, W., *TNS Aug. 2021 1984-1992*
- Ye, J., see Huang, X., *TNS Aug. 2021 1998-2004*
- Ye, Y., see Song, S., *TNS Sept. 2021 2375-2382*
- Ye, Y.M., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Yeom, J., see Cha, H., *TNS May 2021 1135-1143*
- Yiming, Z., see Pengfei, H., *TNS March 2021 318-324*
- Yin, L.Q., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Yin, N., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Yin, W., see Bonini, F., *TNS Sept. 2021 2421-2428*
- Yin, Z., see Fu, X., *TNS Oct. 2021 2452-2458*
- Ying, H., see Teng, J.W., *TNS May 2021 949-957*
- Ying, T., see Wan, P., *TNS June 2021 1265-1271*
- Yitzhak, N.M., see Haran, A., *TNS Nov. 2021 2598-2608*
- Yokkaichi, S., see Takahashi, T., *TNS Aug. 2021 1907-1911*
- Yokoyama, R., see Baba, H., *TNS Aug. 2021 1841-1848*
- Yoneda, H., see Orita, T., *TNS Aug. 2021 2279-2285*
- Yoshida, H., see Dekkers, S., *TNS Aug. 2021 2020-2027*
- Yoshida, H., see Nakazawa, Y., *TNS Aug. 2021 2028-2034*
- Yoshida, K., see Baba, H., *TNS Aug. 2021 1841-1848*
- Yoshida, S., see Khai, B.T., *TNS March 2021 368-378*
- You, X.H., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- You, Z.Y., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Yu, B., see Cha, H., *TNS May 2021 1135-1143*
- Yu, C., see Abgrall, N., *TNS March 2021 359-367*
- Yu, C., see Li, M., *TNS Aug. 2021 2309-2314*
- Yu, H., see Wang, T., *TNS Feb. 2021 101-109*
- Yu, P., Shao, T., Ma, Z., Gao, P., Jing, B., Liu, W., Liu, C., Chen, Y., Liu, Y., Fang, Z., and Luan, L., Influence of Hydrogen Treatment on Electrical Properties of Detector-Grade CdMnTe:In Crystals; *TNS April 2021 458-462*
- Yu, P., see Gu, J., *TNS Aug. 2021 2113-2120*
- Yu, S., see Han, X., *TNS May 2021 756-761*
- Yu, X., see Dong, P., *TNS March 2021 312-317*
- Yu, X., see Wan, P., *TNS June 2021 1265-1271*
- Yu, X., see Zheng, Q., *TNS July 2021 1423-1429*
- Yu, X., see Song, S., *TNS Sept. 2021 2375-2382*
- Yu, X., see Zheng, Q., *TNS Oct. 2021 2516-2523*
- Yu, Y.H., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Yuan, H., see Liu, J., *TNS Dec. 2021 2717-2723*
- Yuan, J., Cao, P., Yang, Y., Li, L., Liu, Z., Zhou, Z., Sun, Z., Wang, X., Zhao, M., Zhou, F., Zheng, W., Feng, C., Cao, Z., Huang, X., and An, Q., Data Acquisition System for Underwater *In Situ* Gamma Radiation Spectrometer; *TNS Aug. 2021 1849-1854*
- Yuan, Q., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Yuan, R., see Cao, S., *TNS Jan. 2021 2-8*
- Yuan, Y., see Pan, Z., *TNS Sept. 2021 2407-2413*
- Yue, S., see Chen, Z., *TNS Feb. 2021 118-123*
- Yuvaraj, N., see Rajakrishna, K., *TNS June 2021 1286-1295*
- Z**
- Zabolotny, W.M., see Kruszewski, M., *TNS June 2021 1186-1193*
- Zakharov, V., see Shulga, E., *TNS Jan. 2021 59-69*
- Zampa, G., see Mele, F., *TNS Dec. 2021 2801-2809*
- Zampa, N., see Mele, F., *TNS Dec. 2021 2801-2809*
- Zangi, U., see Haran, A., *TNS Nov. 2021 2598-2608*
- Zarella, R., see Morrocchi, M., *TNS May 2021 1161-1168*
- Zemko, M., see Frolov, V., *TNS Aug. 2021 1891-1898*
- Zeng, G., see Li, L., *TNS Aug. 2021 2220-2231*
- Zeng, H.D., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zeng, T.X., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zeng, W., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zeng, Y., see Chen, Z., *TNS June 2021 1272-1278*
- Zeng, Z.K., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zenihiro, J., see Baba, H., *TNS Aug. 2021 1841-1848*
- Zenker, K., see Bellandi, A., *TNS April 2021 385-393*
- Zenker, K., Gumus, C., Hierholzer, M., Michel, P., Pfeiffer, S., Schlarb, H., Schmidt, C., Schurig, R., Steinbruck, R., and Kuntzsch, M., MicroT-CA.4-Based Low-Level RF for Continuous Wave Mode Operation at the ELBE Accelerator; *TNS Sept. 2021 2326-2333*
- Zerarka, M., see Ngom, C., *TNS Aug. 2021 1642-1650*
- Zha, M., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhai, X.X., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, B.B., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, C., see Chen, Z., *TNS June 2021 1272-1278*
- Zhang, E., see Dayani, P., *TNS Dec. 2021 2702-2710*
- Zhang, E.X., see Brewer, R.M., *TNS May 2021 677-686*
- Zhang, E.X., see Ryder, K.L., *TNS May 2021 626-633*
- Zhang, E.X., see Li, K., *TNS May 2021 740-747*
- Zhang, E.X., see Teng, J.W., *TNS May 2021 949-957*
- Zhang, E.X., see Rony, M.W., *TNS May 2021 807-814*
- Zhang, E.X., see Toguchi, S., *TNS May 2021 707-715*
- Zhang, E.X., see Gorchichko, M., *TNS May 2021 687-696*
- Zhang, E.X., see Ryder, L.D., *TNS May 2021 801-806*
- Zhang, E.X., see Rony, M.W., *TNS July 2021 1465-1472*
- Zhang, E.X., see Xiong, Y., *TNS Aug. 2021 1579-1584*
- Zhang, E.X., see Ding, J., *TNS Dec. 2021 2724-2735*
- Zhang, F., see Luo, Y., *TNS May 2021 1111-1119*
- Zhang, F., see Ju, A., *TNS Oct. 2021 2508-2515*
- Zhang, H., Zhang, Y., Yang, H., Qian, C., Li, X., Sun, X., Wang, D., Huang, R., Wang, Y., Zhou, W., Niu, X., and Zhao, C., Hi'Beam-A: A Pixelated Beam Monitor for the Accelerator of a Heavy-Ion Therapy Facility; *TNS Aug. 2021 2081-2087*
- Zhang, H., see Pan, Z., *TNS Sept. 2021 2407-2413*
- Zhang, H., see Ju, A., *TNS Oct. 2021 2508-2515*
- Zhang, H., see Zhu, T., *TNS Nov. 2021 2616-2623*
- Zhang, H., see Yang, H., *TNS Dec. 2021 2794-2800*
- Zhang, H.M., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, H.Y., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, J., see Tang, G., *TNS June 2021 1235-1243*
- Zhang, J., see Zhu, B., *TNS June 2021 1309-1318*
- Zhang, J., see Wang, Y., *TNS Aug. 2021 1660-1667*
- Zhang, J., see Ding, Y., *TNS Aug. 2021 2088-2095*
- Zhang, J., see Li, H., *TNS Nov. 2021 2624-2629*
- Zhang, J.L., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, J.W., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, L., see Wang, T., *TNS Feb. 2021 101-109*
- Zhang, L., see Dong, P., *TNS March 2021 312-317*
- Zhang, L., see Hu, C., *TNS June 2021 1244-1250*
- Zhang, L., see Zhang, W., *TNS Aug. 2021 1984-1992*
- Zhang, L., see Huang, X., *TNS Aug. 2021 1998-2004*
- Zhang, L., see Yan, M., *TNS Aug. 2021 2096-2100*
- Zhang, L., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, L., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, L., see Ma, L., *TNS Oct. 2021 2459-2463*
- Zhang, L.X., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, M., see Xu, Z., *TNS June 2021 1251-1257*
- Zhang, P.F., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, P.P., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, Q., see Wang, Y., *TNS Feb. 2021 149-155*
- Zhang, R., see Tang, Y., *TNS Aug. 2021 2286-2293*
- Zhang, R., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, S., see Gao, R., *TNS May 2021 1169-1174*
- Zhang, S.R., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, S.S., see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, T., see Fu, X., *TNS Oct. 2021 2452-2458*

- Zhang, W.**, Sun, H., Edwards, C., Gong, D., Huang, X., Liu, C., Liu, T., Liu, T., Olsen, J., Sun, Q., Sun, X., Wu, J., Ye, J., and Zhang, L., A Low-Power Time-to-Digital Converter for the CMS Endcap Timing Layer (ETL) Upgrade; *TNS Aug. 2021 1984-1992*
- Zhang, W.**, see Huang, X., *TNS Aug. 2021 1998-2004*
- Zhang, X.**, see Zhu, G., *TNS Jan. 2021 9-20*
- Zhang, X.**, see Ren, Z., *TNS Aug. 2021 1565-1570*
- Zhang, X.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, X.**, see Li, M., *TNS Aug. 2021 2309-2314*
- Zhang, X.P.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, Y.**, see Zhu, G., *TNS Jan. 2021 9-20*
- Zhang, Y.**, see Dong, P., *TNS March 2021 312-317*
- Zhang, Y.**, see Ito, K., *TNS Aug. 2021 1668-1674*
- Zhang, Y.**, see Ding, Y., *TNS Aug. 2021 2088-2095*
- Zhang, Y.**, see Hu, Q., *TNS Aug. 2021 2101-2104*
- Zhang, Y.**, see Zhang, H., *TNS Aug. 2021 2081-2087*
- Zhang, Y.**, see Yan, M., *TNS Aug. 2021 2096-2100*
- Zhang, Y.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, Y.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, Y.**, see Ma, L., *TNS Oct. 2021 2459-2463*
- Zhang, Y.**, Yang, M., Wu, Y., Sun, L., Ran, J., and Lin, Q., A New CL Reconstruction Method Under the Displaced Sample Stage Scanning Mode; *TNS Nov. 2021 2574-2586*
- Zhang, Y.**, see Yang, H., *TNS Dec. 2021 2794-2800*
- Zhang, Y.F.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, Y.L.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhang, Z.**, see Chen, Z., *TNS Feb. 2021 118-123*
- Zhang, Z.**, see Peng, C., *TNS Feb. 2021 156-164*
- Zhang, Z.**, see Dong, Z., *TNS June 2021 1207-1221*
- Zhang, Z.**, see Wan, P., *TNS June 2021 1258-1264*
- Zhang, Z.**, see Liu, C., *TNS Nov. 2021 2609-2615*
- Zhao, B.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhao, C.**, see Zhu, B., *TNS June 2021 1309-1318*
- Zhao, C.**, see Zhang, H., *TNS Aug. 2021 2081-2087*
- Zhao, C.**, see Yang, H., *TNS Dec. 2021 2794-2800*
- Zhao, J.**, see Nakao, M., *TNS Aug. 2021 1826-1832*
- Zhao, J.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhao, K.**, see Gao, R., *TNS May 2021 1169-1174*
- Zhao, L.**, see Gu, J., *TNS Aug. 2021 2113-2120*
- Zhao, L.**, see Lu, J., *TNS Aug. 2021 1976-1983*
- Zhao, L.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhao, L.Z.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhao, M.**, see Zhu, B., *TNS June 2021 1309-1318*
- Zhao, M.**, see Yuan, J., *TNS Aug. 2021 1849-1854*
- Zhao, Q.**, see Zhu, B., *TNS June 2021 1309-1318*
- Zhao, R.**, Besson, A., Hu-Guo, C., and Hu, Y., A 2-D Clustering Algorithm for Data Reconstruction in Vertex Detector of ILC; *TNS Nov. 2021 2647-2654*
- Zhao, S.E.**, see Li, K., *TNS May 2021 740-747*
- Zhao, S.P.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhao, X.**, see Huang, X., *TNS Aug. 2021 1998-2004*
- Zhao, X.**, see Liu, F., *TNS Aug. 2021 2315-2322*
- Zhao, Y.**, Sun, B., Wang, J., Wu, F., Lu, P., and Zhou, T., Experimental Research on HLS-II Performance by Means of the RF Phase Modulation Technique; *TNS Feb. 2021 92-100*
- Zhao, Y.**, see Ryder, K.L., *TNS May 2021 626-633*
- Zhao, Y.**, see Ryder, L.D., *TNS Oct. 2021 2496-2507*
- Zhao, Z.**, see Wu, B., *TNS April 2021 470-476*
- Zhao, Z.**, see Huang, P., *TNS May 2021 1103-1110*
- Zhen, Z.**, see Wan, P., *TNS June 2021 1265-1271*
- Zhen, Z.**, Feng, C., Wang, Q., Niu, D., Wang, X., and Tan, M., Single Event Burnout Hardening of Enhancement Mode HEMTs With Double Field Plates; *TNS Sept. 2021 2358-2366*
- Zheng, F.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zheng, G.**, see Hu, Q., *TNS Aug. 2021 2101-2104*
- Zheng, H.**, see Mu, X., *TNS Dec. 2021 2762-2770*
- Zheng, Q.**, Cui, J., Yu, X., Li, Y., Lu, W., He, C., and Guo, Q., Impact of TID on Within-Wafer Variability of Radiation-Hardened SOI Wafers; *TNS July 2021 1423-1429*
- Zheng, Q.**, Cui, J., Yu, X., Li, Y., Lu, W., He, C., and Guo, Q., Measurement and Evaluation of the Within-Wafer TID Response Variability on BOX Layer of SOI Technology; *TNS Oct. 2021 2516-2523*
- Zheng, S.**, see Wang, X., *TNS July 2021 1399-1406*
- Zheng, W.**, see Yuan, J., *TNS Aug. 2021 1849-1854*
- Zheng, X.**, see Wang, Y., *TNS Feb. 2021 149-155*
- Zheng, X.**, see Zhu, T., *TNS Nov. 2021 2616-2623*
- Zheng, Y.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhivun, E.**, see Bonini, F., *TNS Sept. 2021 2421-2428*
- Zhong, K.**, Liu, H., Zhou, Q., Liang, J., and Song, K., A New DCC Software for $4\pi\beta(\text{LS}) - \gamma$ Coincidence Counting; *TNS Aug. 2021 1920-1926*
- Zhong, T.**, see Augustin, H., *TNS Aug. 2021 1833-1840*
- Zhong, X.**, see Chen, Z., *TNS Feb. 2021 118-123*
- Zhong, X.**, see Ju, A., *TNS Oct. 2021 2508-2515*
- Zhou, B.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhou, F.**, see Yuan, J., *TNS Aug. 2021 1849-1854*
- Zhou, H.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhou, J.N.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhou, L.**, see Gao, R., *TNS May 2021 1169-1174*
- Zhou, P.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhou, Q.**, see Zhong, K., *TNS Aug. 2021 1920-1926*
- Zhou, Q.**, see Nakao, M., *TNS Aug. 2021 1826-1832*
- Zhou, Q.D.**, Yamada, S., Robbe, P., Charlet, D., Itoh, R., Nakao, M., Suzuki, S.Y., Kunigo, T., Jules, E., Plaige, E., Taurigna, M., Purwar, H., Hartrich, O., Bessner, M., Nishimura, K., Varner, G., Lai, Y., Higuchi, T., Sugiura, R., Biswas, D., and Kapusta, P., PCI-Express Based High-Speed Readout for the Belle II DAQ Upgrade; *TNS Aug. 2021 1818-1825*
- Zhou, R.**, see Zhu, B., *TNS June 2021 1309-1318*
- Zhou, R.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
- Zhou, S.Z.**, see Aharonian, F., *TNS Aug. 2021 2257-2267*
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- Zhu, B.**, Wang, Z., Zhang, J., Chen, Q., Huang, Q., Zhao, C., Zhao, M., Zhu, H., Zhao, Q., Zhou, R., and Yang, C., Design and Implementation of a Portable High-Performance Gamma-Ray Camera; *TNS June 2021 1309-1318*
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- Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K., +, TNS June 2021 1319-1324*

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Pattern-Matching Unit for Medical Applications. *Leombruni, O.*, +, *TNS Aug. 2021 2140-2145*

Bipolar integrated circuits

Analysis of Bipolar Integrated Circuit Degradation Mechanisms Against Combined TID–DD Effects. *Ferraro, R.*, +, *TNS Aug. 2021 1585-1593*

Modeling the Ionization Damage on Excess Base Current in p-n-p BJTs for Circuit-Level Simulation. *Li, L.*, +, *TNS Aug. 2021 2220-2231*

Bipolar transistors

Modeling the Ionization Damage on Excess Base Current in p-n-p BJTs for Circuit-Level Simulation. *Li, L.*, +, *TNS Aug. 2021 2220-2231*

Relating Gain Degradation to Defects Production in Neutron-Irradiated 4H-SiC Transistors. *Dong, P.*, +, *TNS March 2021 312-317*

Boron

Multilayered Solid-State Neutron Sensor. *Rice, W.C.*, +, *TNS May 2021 890-896*

Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays. *Blanchet, T.*, +, *TNS Aug. 2021 1681-1687*

Boron alloys

Heavy-Ion Irradiation Effects on Advanced Perpendicular Anisotropy Spin-Transfer Torque Magnetic Tunnel Junction. *Coi, O.*, +, *TNS May 2021 588-596*

Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Xiao, T.P.*, +, *TNS May 2021 581-587*

Irradiation Effects on Perpendicular Anisotropy Spin–Orbit Torque Magnetic Tunnel Junctions. *Alamdar, M.*, +, *TNS May 2021 665-670*

Bragg gratings

Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays. *Blanchet, T.*, +, *TNS Aug. 2021 1681-1687*

Burke, Edward A.

In Memoriam Edward A. Burke. *TNS May 2021 500*

C**Cadmium alloys**

Performance of Larger-Volume $40 \times 40 \times 10$ - and $40 \times 40 \times 15$ -mm³ CdZnTe Detectors. *Zhu, Y.*, +, *TNS Feb. 2021 250-255*

Cadmium compounds

ALTAIR: A Low-Noise, Low-Power, High-Speed and Wide Dynamic Range ASIC for X- and γ -Ray Spectroscopy With CdTe/CdZnTe Pixel Detectors. *Macera, D.*, +, *TNS Feb. 2021 182-188*

Double-Photon Emission Imaging With High-Resolution Si/CdTe Compton Cameras. *Orita, T.*, +, *TNS Aug. 2021 2279-2285*

Growth of Cd_{0.9}Zn_{0.1}Te_{1-y}Se_y Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*

Influence of Hydrogen Treatment on Electrical Properties of Detector-Grade CdMnTe:In Crystals. *Yu, P.*, +, *TNS April 2021 458-462*

Polarimetry With a Multilayer CdTe Prototype for Soft Gamma-Ray Astrophysics. *Moita, M.*, +, *TNS Nov. 2021 2655-2660*

Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X.*, +, *TNS Jan. 2021 27-35*

X \rightarrow Ray Spectroscopy With a CdTe Pixel Detector and SIRIO Preamplifier at Deep Submicrosecond Signal-Processing Time. *Sammartini, M.*, +, *TNS Jan. 2021 70-75*

Calcium

Coupling Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Solar Array Drive Assembly. *Wang, X.*, +, *TNS July 2021 1399-1406*

Calibration

A 24-Channel Digitizer With a JESD204B-Compliant Serial Interface for High-Speed Detectors. *Grace, C.R.*, +, *TNS April 2021 426-433*

A Low-Power Time-to-Digital Converter for the CMS Endcap Timing Layer (ETL) Upgrade. *Zhang, W.*, +, *TNS Aug. 2021 1984-1992*

A New DCC Software for $4\pi\beta$ (LS) – γ Coincidence Counting. *Zhong, K.*, +, *TNS Aug. 2021 1920-1926*

A System-Level Modeling Approach for Simulating Radiation Effects in Successive-Approximation Analog-to-Digital Converters. *Rony, M.W.*, +, *TNS July 2021 1465-1472*

Development of a High-Resolution Digital Beam Position Processor for the Hefei Advanced Light Facility Preresearch Project. *Huang, L.*, +, *TNS Aug. 2021 2239-2248*

Development of the Calibration System and Characterization of the Avalanche Photodiode for Scintillation Detection. *Jegal, J.*, +, *TNS June 2021 1304-1308*

Evaluation of Timepix3 Si and CdTe Hybrid-Pixel Detectors' Spectrometric Performances on X- and Gamma-Rays. *Amoyal, G.*, +, *TNS Feb. 2021 229-235*

Measuring and Mapping Potassium in Agricultural Fields Using Gamma Spectroscopy. *Kavetskiy, A.*, +, *TNS Oct. 2021 2550-2558*

ProtoDUNE-DP Light Acquisition and Calibration Software. *Belver, D.*, +, *TNS Sept. 2021 2334-2341*

Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*

The Study of Calibration for the Hybrid Pixel Detector With Single Photon Counting in HEPS-BPIX. *Ding, Y.*, +, *TNS Aug. 2021 2088-2095*

Cameras

3-D Object Tracking in Panoramic Video and LiDAR for Radiological Source–Object Attribution and Improved Source Detection. *Marshall, M.R.*, +, *TNS Feb. 2021 189-202*

Design and Implementation of a Portable High-Performance Gamma-Ray Camera. *Zhu, B.*, +, *TNS June 2021 1309-1318*

Double-Photon Emission Imaging With High-Resolution Si/CdTe Compton Cameras. *Orita, T.*, +, *TNS Aug. 2021 2279-2285*

Simulation Study on the Effect of Constant Hole Length of Curved Diverging Collimators for Radiation Monitoring Systems. *Cha, H.*, +, *TNS May 2021 1135-1143*

The MiniSDD-Based 1-Mpixel Camera of the DSSC Project for the European XFEL. *Porro, M.*, +, *TNS June 2021 1334-1350*

Campbell, Arthur B.

In Memoriam Arthur B. Campbell. *TNS May 2021 501*

Capacitance

Acquiring and Modeling of Si Solar-Cell Transient Response to Pulsed X-Ray. *Pan, L.*, +, *TNS May 2021 1152-1160*

Optimization of the 65-nm CMOS Linear Front-End Circuit for the CMS Pixel Readout at the HL-LHC. *Gaioni, L.*, +, *TNS Nov. 2021 2682-2692*

Carbon

Effects of Ionization and Displacement Damage in AlGaIn/GaN HEMT Devices Caused by Various Heavy Ions. *Wan, P.*, +, *TNS June 2021 1265-1271*

Relating Gain Degradation to Defects Production in Neutron-Irradiated 4H-SiC Transistors. *Dong, P.*, +, *TNS March 2021 312-317*

Carrier density

Degradation Study of InGaAsN p-i-n Solar Cell Under 1-MeV Electron Irradiation. *Levillayer, M.*, +, *TNS Aug. 2021 1694-1700*

Enhanced Energy Resolution of GaN-on-Sapphire p-i-n Alpha-Particle Detector With Isoelectronic Al-Doped i-GaN Layer. *Geng, X.*, +, *TNS Aug. 2021 2301-2308*

Influence of Hydrogen Treatment on Electrical Properties of Detector-Grade CdMnTe:In Crystals. *Yu, P.*, +, *TNS April 2021 458-462*

Carrier lifetime

Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*

Carrier mobility

Influence of Hydrogen Treatment on Electrical Properties of Detector-Grade CdMnTe:In Crystals. *Yu, P.*, +, *TNS April 2021 458-462*

Cathodes

Diagonal 4-in ZnO Nanowire Cold Cathode Flat-Panel X-Ray Source: Preparation and Projection Imaging Properties. *Wang, L.*, +, *TNS March 2021 338-345*

Celestial mechanics

On-Orbit Pile-Up Detection and Digital Pulse Shape Measurement Results in the Radiation Telescope. *Ueno, H.*, +, *TNS Aug. 2021 1764-1771*

Role of Electron-Induced Coulomb Interactions to the Total SEU Rate During Earth and JUICE Missions. *Caron, P.*, +, *TNS Aug. 2021 1607-1612*

Ceramics

Comparison of Photoluminescence and Scintillation Properties Between $\text{Lu}_2\text{O}_3\text{:Eu}$ Single Crystal and Transparent Ceramic. *Haihang, Y.*, +, *TNS April 2021 477-482*

Cerium

Combined Temperature and Radiation Effects on the Gain of Er- and Er-Yb-Doped Fiber Amplifiers. *Aubry, M.*, +, *TNS May 2021 793-800*

Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*

Charge injection

Development of the Calibration System and Characterization of the Avalanche Photodiode for Scintillation Detection. *Jegal, J.*, +, *TNS June 2021 1304-1308*

Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs. *Rony, M.W.*, +, *TNS May 2021 807-814*

Chemical vapor deposition

Distributed Temperature and Strain Fiber-Based Sensing in Radiation Environment. *Sabatier, C.*, +, *TNS Aug. 2021 1675-1680*

Cherenkov counters

Design and Testing of the Front-End Electronics of WCDA in LHAASO. *Aharonian, F.*, +, *TNS Aug. 2021 2257-2267*

The Stereoscopic Analog Trigger of the MAGIC Telescopes. *Dazzi, F.*, +, *TNS July 2021 1473-1486*

Cherenkov radiation

The Stereoscopic Analog Trigger of the MAGIC Telescopes. *Dazzi, F.*, +, *TNS July 2021 1473-1486*

Chiral symmetries

Data Acquisition System in the First Commissioning Run of the J-PARC E16 Experiment. *Takahashi, T.*, +, *TNS Aug. 2021 1907-1911*

Chlorine

Neutron-Stimulated Gamma Ray Measurements for Chlorine Detection. *Kavetskiy, A.*, +, *TNS July 2021 1495-1504*

Circuit simulation

Analysis of Bipolar Integrated Circuit Degradation Mechanisms Against Combined TID-DD Effects. *Ferraro, R.*, +, *TNS Aug. 2021 1585-1593*

Modeling the Ionization Damage on Excess Base Current in p-n-p BJTs for Circuit-Level Simulation. *Li, L.*, +, *TNS Aug. 2021 2220-2231*

Citation analysis

Citation Impact of Outstanding Conference Papers of the IEEE Nuclear and Space Radiation Effects Conference. *Fleetwood, D.M.*, *TNS March 2021 325-337*

Clock and data recovery circuits

FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics. *Marini, F.*, +, *TNS Aug. 2021 1952-1960*

Clock distribution networks

20-ps Resolution Clock Distribution Network for a Fast-Timing Single-Photon Detector. *Egidios, N.*, +, *TNS April 2021 434-446*

Clocks

20-ps Resolution Clock Distribution Network for a Fast-Timing Single-Photon Detector. *Egidios, N.*, +, *TNS April 2021 434-446*

A Clock Distribution and Synchronization Scheme Over Optical Links for Large-Scale Physics Experiments. *Hu, Y.*, +, *TNS June 2021 1351-1358*

Prototype of Clock and Timing Distribution and Synchronization Electronics for SHINE. *Gu, J.*, +, *TNS Aug. 2021 2113-2120*

Closed loop systems

L₁-Adaptive Robust Control Design for a Pressurized Water-Type Nuclear Power Plant. *Vajpayee, V.*, +, *TNS July 2021 1381-1398*

Clustering algorithms

A 2-D Clustering Algorithm for Data Reconstruction in Vertex Detector of ILC. *Zhao, R.*, +, *TNS Nov. 2021 2647-2654*

CMOS analog integrated circuits

Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K.*, +, *TNS June 2021 1319-1324*

Design and Verification of a 6.25 GHz LC-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. *Monda, D.*, +, *TNS Oct. 2021 2524-2532*

Ultra-High Total Ionizing Dose Effects on MOSFETs for Analog Applications. *Dewitte, H.*, +, *TNS May 2021 697-706*

CMOS digital integrated circuits

A Low-Power Time-to-Digital Converter for the CMS Endcap Timing Layer (ETL) Upgrade. *Zhang, W.*, +, *TNS Aug. 2021 1984-1992*

A Switched Capacitor Waveform Digitizing ASIC at Cryogenic Temperature for HPGe Detectors. *Liu, F.*, +, *TNS Aug. 2021 2315-2322*

TID and Heavy-Ion Performance of an RHBD Multichannel Digitizer in 180-nm CMOS. *Quilligan, G.*, +, *TNS July 2021 1414-1422*

CMOS image sensors

A 24-Channel Digitizer With a JESD204B-Compliant Serial Interface for High-Speed Detectors. *Grace, C.R.*, +, *TNS April 2021 426-433*

The MiniSDD-Based 1-Mpixel Camera of the DSSC Project for the European XFEL. *Porro, M.*, +, *TNS June 2021 1334-1350*

CMOS integrated circuits

A 10-Gb/s Driver/Receiver ASIC and Optical Modules for Particle Physics Experiments. *Huang, X.*, +, *TNS Aug. 2021 1998-2004*

A Highly Linear FPGA-Based TDC and a Low-Power Multichannel Readout ASIC With a Shared SAR ADC for SiPM Detectors. *Tang, Y.*, +, *TNS Aug. 2021 2286-2293*

A Low-Power Time-to-Digital Converter for the CMS Endcap Timing Layer (ETL) Upgrade. *Zhang, W.*, +, *TNS Aug. 2021 1984-1992*

A Reconfigurable Neural Network ASIC for Detector Front-End Data Compression at the HL-LHC. *Guglielmo, G.D.*, +, *TNS Aug. 2021 2179-2186*

Analysis of Single-Event Transients (SETs) Using Machine Learning (ML) and Ionizing Radiation Effects Spectroscopy (IRES). *Loveless, T.D.*, +, *TNS Aug. 2021 1600-1606*

Displacement Damage Characterization of CMOS Single-Photon Avalanche Diodes: Alpha-Particle and Fast-Neutron Measurements. *Malherbe, V.*, +, *TNS May 2021 777-784*

Evaluation of the Radiation Hardness of Photodiodes in 180-nm CMOS Technology for Medical Applications. *Segmanovic, F.*, +, *TNS Sept. 2021 2367-2374*

Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies. *Privat, A.*, +, *TNS May 2021 671-676*

High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S.*, +, *TNS Aug. 2021 2268-2278*

Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. *Shawkat, M.S.A.*, +, *TNS March 2021 279-291*

Monitoring of Particle Count Rate and LET Variations With Pulse Stretching Inverters. *Andjelkovic, M.*, +, *TNS Aug. 2021 1772-1781*

SIRIO: A High-Speed CMOS Charge-Sensitive Amplifier for High-Energy-Resolution X- γ Ray Spectroscopy With Semiconductor Detectors. *Mele, F.*, +, *TNS March 2021 379-383*

CMOS logic circuits

Scaling Trends of Digital Single-Event Effects: A Survey of SEU and SET Parameters and Comparison With Transistor Performance. *Kobayashi, D.*, *TNS Feb. 2021 124-148*

TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T.*, +, *TNS May 2021 603-610*

CMOS memory circuits

Dependence of Temperature and Back-Gate Bias on Single-Event Upset Induced by Heavy Ion in 0.2- μm DSOI CMOS Technology. *Wang, Y.*, +, *TNS Aug. 2021 1660-1667*

Design-Stage Hardening of 65-nm CMOS Standard Cells Against Multiple Events. *Balbekov, A.O.*, +, *TNS Aug. 2021 1712-1718*

Impact of the Bitcell Topology on the Multiple-Cell Upsets Observed in VLSI Nanoscale SRAMs. *Clemente, J.A.*, +, *TNS Sept. 2021 2383-2391*

Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators. *Xiao, T.P.*, +, *TNS May 2021 762-769*

Scaling Trends of Digital Single-Event Effects: A Survey of SEU and SET Parameters and Comparison With Transistor Performance. *Kobayashi, D.*, *TNS Feb. 2021 124-148*

Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS. *Wang, J.*, +, *TNS May 2021 913-920*

TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T.*, +, *TNS May 2021 603-610*

Total Ionizing Dose Effects on Multistate HfO_x -Based RRAM Synaptic Array. *Han, X.*, +, *TNS May 2021 756-761*

CMOS process

A 2-D Clustering Algorithm for Data Reconstruction in Vertex Detector of ILC. *Zhao, R.*, +, *TNS Nov. 2021 2647-2654*

A Body-Biasing Technique for Single-Event Transient Mitigation in 28-nm Bulk CMOS Process. *Liu, J.*, +, *TNS Dec. 2021 2717-2723*

CMOS technology

Low-Noise Analog Channel for the Readout of the Si(Li) Detector of the GAPS Experiment. *Manghisoni, M.*, +, *TNS Nov. 2021 2661-2669*

Optimization of the 65-nm CMOS Linear Front-End Circuit for the CMS Pixel Readout at the HL-LHC. *Gaioni, L.*, +, *TNS Nov. 2021 2682-2692*

Cobalt alloys

Heavy-Ion Irradiation Effects on Advanced Perpendicular Anisotropy Spin-Transfer Torque Magnetic Tunnel Junction. *Coi, O.*, +, *TNS May 2021 588-596*

Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Xiao, T.P.*, +, *TNS May 2021 581-587*

Coercive force

Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Xiao, T.P.*, +, *TNS May 2021 581-587*

Irradiation Effects on Perpendicular Anisotropy Spin-Orbit Torque Magnetic Tunnel Junctions. *Alamdar, M.*, +, *TNS May 2021 665-670*

Coincidence techniques

A New DCC Software for $4\pi\beta(\text{LS}) - \gamma$ Coincidence Counting. *Zhong, K.*, +, *TNS Aug. 2021 1920-1926*

Design of Time-to-Digital Converters for Time-Over-Threshold Measurement in Picosecond Timing Detectors. *Wu, B.*, +, *TNS April 2021 470-476*

Collimators

Simulation Study on the Effect of Constant Hole Length of Curved Diverging Collimators for Radiation Monitoring Systems. *Cha, H.*, +, *TNS May 2021 1135-1143*

Combinational circuits

Neutron-Induced Pulswidth Distribution of Logic Gates Characterized Using a Pulse Shrinking Chain-Based Test Structure. *Pande, N.*, +, *TNS Dec. 2021 2736-2747*

Command and control systems

Immersive Operation of a Semi-Autonomous Aerial Platform for Detecting and Mapping Radiation. *Dayani, P.*, +, *TNS Dec. 2021 2702-2710*

Comparators (circuits)

A System-Level Modeling Approach for Simulating Radiation Effects in Successive-Approximation Analog-to-Digital Converters. *Rony, M.W.*, +, *TNS July 2021 1465-1472*

Simultaneous Single-Event Transient (SET) Observation on LM139A Wired-and Comparator Circuit. *Morand, S.*, +, *TNS June 2021 1279-1285*

Compton effect

Application of a Simple, Spiking, Locally Competitive Algorithm to Radionuclide Identification. *Carson, M.*, +, *TNS March 2021 292-304*

Double-Photon Emission Imaging With High-Resolution Si/CdTe Compton Cameras. *Orita, T.*, +, *TNS Aug. 2021 2279-2285*

Polaris-LAMP: Multi-Modal 3-D Image Reconstruction With a Commercial Gamma-Ray Imager. *Hecla, J.*, +, *TNS Oct. 2021 2539-2549*

Row-Column Readout Method to Mitigate Radiographic-Image Blurring From Multipixel Events in a Coded-Aperture Imaging System. *Boo, J.*, +, *TNS May 2021 1175-1183*

Computed tomography

A New CL Reconstruction Method Under the Displaced Sample Stage Scanning Mode. *Zhang, Y.*, +, *TNS Nov. 2021 2574-2586*

FPGA-Based Real-Time Data Acquisition for Ultrafast X-Ray Computed Tomography. *Windisch, D.*, +, *TNS Dec. 2021 2779-2786*

Computer graphic equipment

Particle Tracking With Space Charge Effects Using Graphics Processing Unit. *Kurimoto, Y.*, *TNS Aug. 2021 1912-1919*

Computer network management

Data-Taking Network for COMET Phase-I. *Igarashi, Y.*, +, *TNS Aug. 2021 1884-1890*

Computerized instrumentation

Electrical Analysis Method for Gamma-Ray Imaging System Based on Resistive Network Readout. *Jeon, S.*, +, *TNS Sept. 2021 2392-2399*

Computerized tomography

Dual-Energy Micro-CT Using GAGG:Ce and LYSO:Ce Scintillators. *Xia, X.*, +, *TNS Feb. 2021 236-244*

Self-Absorption Correction in X-Ray Fluorescence-Computed Tomography With Deep Convolutional Neural Network. *Gao, B.*, +, *TNS June 2021 1194-1206*

Control engineering computing

OpenPMC: A Free and Open-Source Intelligent Platform Management Controller Software. *Calligaris, L.*, +, *TNS Aug. 2021 2105-2112*

Control system synthesis

L_1 -Adaptive Robust Control Design for a Pressurized Water-Type Nuclear Power Plant. *Vajpayee, V.*, +, *TNS July 2021 1381-1398*

Convergence of numerical methods

A Code Verification for the Cavity SGEMP Simulation Code LASER-SGEMP. *Xu, Z.*, +, *TNS June 2021 1251-1257*

Convolutional neural nets

A 3-D Neutron Distribution Reconstruction Method Based on the Off-Situ Measurement for Reactor. *Cao, P.*, +, *TNS Dec. 2021 2694-2701*

A New Technique Based on Convolutional Neural Networks to Measure the Energy of Protons and Electrons With a Single Timepix Detector. *Ruffenach, M.*, +, *TNS Aug. 2021 1746-1753*

How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F.*, +, *TNS May 2021 865-872*

Impact of Single-Event Upsets on Convolutional Neural Networks in Xilinx Zynq FPGAs. *Wang, H.*, +, *TNS April 2021 394-401*

Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators. *Xiao, T.P.*, +, *TNS May 2021 762-769*

Real-Time Implementation of the Neutron/Gamma Discrimination in an FPGA-Based DAQ MTCA Platform Using a Convolutional Neural Network. *Astrain, M.*, +, *TNS Aug. 2021 2173-2178*

Cooling

Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G.*, +, *TNS Jan. 2021 9-20*

Copper

Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*

Copper compounds

Growth of $\text{Cd}_{0.9}\text{Zn}_{0.1}\text{Te}_{1-y}\text{Se}_y$ Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*

Coprocessors

Particle Tracking With Space Charge Effects Using Graphics Processing Unit. *Kurimoto, Y.*, *TNS Aug. 2021 1912-1919*

Cosmic ray apparatus

Design and Testing of the Front-End Electronics of WCDA in LHAASO. *Aharonian, F.*, +, *TNS Aug. 2021 2257-2267*

High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S.*, +, *TNS Aug. 2021 2268-2278*

The Stereoscopic Analog Trigger of the MAGIC Telescopes. *Dazzi, F.*, +, *TNS July 2021 1473-1486*

Cosmic ray muons

High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S.*, +, *TNS Aug. 2021 2268-2278*

Cosmic ray showers

Design and Testing of the Front-End Electronics of WCDA in LHAASO. *Aharonian, F.*, +, *TNS Aug. 2021 2257-2267*

The Stereoscopic Analog Trigger of the MAGIC Telescopes. *Dazzi, F.*, +, *TNS July 2021 1473-1486*

Covariance matrices

Application of Markov Chain Monte Carlo Methods for Uncertainty Quantification in Inverse Transport Problems. *Bledsoe, K.C.*, +, *TNS Aug. 2021 2210-2219*

CP invariance

Archiver System Management for Belle II Detector Operation. *Kim, Y.*, +, *TNS Aug. 2021 2146-2150*

Cryogenic electronics

A Switched Capacitor Waveform Digitizing ASIC at Cryogenic Temperature for HPGe Detectors. *Liu, F.*, +, *TNS Aug. 2021 2315-2322*

Crystal growth from melt

Growth of $\text{Cd}_{0.9}\text{Zn}_{0.1}\text{Te}_{1-x}\text{Se}_x$ Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*

Crystal structure

Defect-Induced Phase Transition in Hafnium Oxide Thin Films: Comparing Heavy Ion Irradiation and Oxygen-Engineering Effects. *Vogel, T.*, +, *TNS Aug. 2021 1542-1547*

Current density

Simulations of Internal Charging Effects of Artificial Radiation Belt on Dielectric Material. *Zuo, Y.*, +, *TNS May 2021 1120-1128*

Cyclotrons

Electromagnetic and Engineering Design of a High-Current 15-MeV/u Cyclotron. *Kutsaev, S.V.*, +, *TNS May 2021 1083-1093*

High-Current Light-Ion Cyclotron for Applications in Nuclear Security and Radioisotope Production. *Johnstone, C.*, +, *TNS May 2021 1072-1082*

LLRF Controller for High Current Cyclotron-Based BNCT System. *Fu, X.*, +, *TNS Oct. 2021 2452-2458*

D**Dark conductivity**

Electron Irradiation Effect on Van Der Waals Transistor for High-Detectivity Near-Infrared Photodetectors. *Pengfei, H.*, +, *TNS March 2021 318-324*

Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. *Shawkat, M.S.A.*, +, *TNS March 2021 279-291*

Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X.*, +, *TNS Jan. 2021 27-35*

Variation of Permittivity and Dark Conductivity of Polyimide and FR4 With Electron Dose by Experiments. *Song, S.*, +, *TNS Sept. 2021 2375-2382*

Dark matter

A Study on Energy Resolution of CANDLES Detector. *Khali, B.T.*, +, *TNS March 2021 368-378*

Data acquisition

A Generic Streaming Software Platform Design for High-Energy Physics Data Acquisition Systems. *Wang, T.*, +, *TNS Feb. 2021 101-109*

A Highly Linear FPGA-Based TDC and a Low-Power Multichannel Readout ASIC With a Shared SAR ADC for SiPM Detectors. *Tang, Y.*, +, *TNS Aug. 2021 2286-2293*

A Zynq-Based Flexible ADC Architecture Combining Real-Time Data Streaming and Transient Recording. *Garola, A.R.*, +, *TNS Feb. 2021 245-249*

An FPGA-Based Trigger System With Online Track Recognition in COMET Phase-I. *Nakazawa, Y.*, +, *TNS Aug. 2021 2028-2034*

Archiver System Management for Belle II Detector Operation. *Kim, Y.*, +, *TNS Aug. 2021 2146-2150*

CentOS Linux for the ATLAS MUCTPI Upgrade. *Spiwojs, R.*, +, *TNS Aug. 2021 2127-2131*

Chopped Cold Neutron Beam Activation Analysis. *Turkoglu, D.J.*, +, *TNS July 2021 1505-1510*

Cooling and Timing Tests of the ATLAS Fast TracKer VME Boards. *Sottocornola, S.*, +, *TNS Aug. 2021 2051-2058*

Data Acquisition System for the COMPASS+/ AMBER Experiment. *Frolov, V.*, +, *TNS Aug. 2021 1891-1898*

Data Acquisition System for Underwater *In Situ* Gamma Radiation Spectrometer. *Yuan, J.*, +, *TNS Aug. 2021 1849-1854*

Data Acquisition System in the First Commissioning Run of the J-PARC E16 Experiment. *Takahashi, T.*, +, *TNS Aug. 2021 1907-1911*

Data-Taking Network for COMET Phase-I. *Igarashi, Y.*, +, *TNS Aug. 2021 1884-1890*

Design of the Compact Processing Module for the ATLAS Tile Calorimeter. *Carrio, F.*, *TNS Aug. 2021 1944-1951*

Development of Multichannel High Time Resolution Data Acquisition System for TOT-ASIC. *Sato, S.*, +, *TNS Aug. 2021 1801-1806*

Experience and Performance of Persistent Memory for the DUNE Data Acquisition System. *Abud, A.A.*, +, *TNS Aug. 2021 2159-2164*

FPGA-Based Real-Time Data Acquisition for Ultrafast X-Ray Computed Tomography. *Windisch, D.*, +, *TNS Dec. 2021 2779-2786*

FPGA-Based Real-Time Image Manipulation and Advanced Data Acquisition for 2-D-XRAY Detectors. *Mansour, W.*, +, *TNS Aug. 2021 1927-1932*

Frame-Level Intermodular Configuration Scrubbing of On-Detector FPGAs for the ARICH at Belle II. *Giordano, R.*, +, *TNS Dec. 2021 2810-2817*

High-Level Software Interface to the LLRF System Developed for the European Spallation Source Facility. *Klys, K.*, +, *TNS Aug. 2021 2132-2139*

How to Improve the Performance of Fast Timing Detector. *Ma, L.*, +, *TNS Oct. 2021 2459-2463*

Initial Tests and Characterization of the Readout Electronics for the IXPE Mission. *Barbanera, M.*, +, *TNS May 2021 1144-1151*

MPV—Parallel Readout Architecture for the VME Data Acquisition System. *Baba, H.*, +, *TNS Aug. 2021 1841-1848*

Multiplexing Firmware Prototypes for the Global Trigger Subsystem of ATLAS Phase-II Upgrade. *Bonini, F.*, +, *TNS Sept. 2021 2421-2428*

New Software-Based Readout Driver for the ATLAS Experiment. *Kolos, S.*, +, *TNS Aug. 2021 1811-1817*

NOAA Image Data Acquisition to Determine Soil Moisture in Arequipa, Perú. *Argume, A.*, +, *TNS Aug. 2021 1933-1936*

On-Orbit Pile-Up Detection and Digital Pulse Shape Measurement Results in the Radiation Telescope. *Ueno, H.*, +, *TNS Aug. 2021 1764-1771*

OpenIPMC: A Free and Open-Source Intelligent Platform Management Controller Software. *Calligaris, L.*, +, *TNS Aug. 2021 2105-2112*

Operational Experience and Evolution of the ATLAS Tile Hadronic Calorimeter Read-Out Drivers. *Valero, A.*, *TNS Aug. 2021 1807-1810*

Pattern-Matching Unit for Medical Applications. *Leombruni, O.*, +, *TNS Aug. 2021 2140-2145*

PCI-Express Based High-Speed Readout for the Belle II DAQ Upgrade. *Zhou, Q.D.*, +, *TNS Aug. 2021 1818-1825*

Performance of the Unified Readout System of Belle II. *Nakao, M.*, +, *TNS Aug. 2021 1826-1832*

ProtoDUNE-DP Light Acquisition and Calibration Software. *Belver, D.*, +, *TNS Sept. 2021 2334-2341*

Prototype Data Acquisition and Slow Control Systems for the Mu2e Experiment. *Gioiosa, A.*, +, *TNS Aug. 2021 1862-1868*

Pulse Shape Discrimination of CsI(Tl) With a Photomultiplier Tube and Multipixel Photon Counters. *Viet, N.V.H.*, +, *TNS Feb. 2021 203-210*

Raw Data Processing Using Modern Hardware for Inspection of Objects in X-Ray Baggage Inspection Systems. *Malarvizhi, S.*, +, *TNS June 2021 1296-1303*

Readout Firmware of the Vertex Locator for LHCb Run 3 and Beyond. *Hennesy, K.*, +, *TNS Oct. 2021 2472-2479*

Real-Time Implementation of the Neutron/Gamma Discrimination in an FPGA-Based DAQ MTCA Platform Using a Convolutional Neural Network. *Astrain, M.*, +, *TNS Aug. 2021 2173-2178*

Safe and Reusable Approach for Pin-to-Port Assignment in Multiboard FPGA Data Acquisition and Control Designs. *Kruszewski, M.*, +, *TNS June 2021 1186-1193*

The Electronics Design of Real-Time Feedback Control System in KTX. *Song, S.*, +, *TNS Aug. 2021 2066-2073*

The FragmentatiON Of Target (FOOT) Experiment and Its DAQ System. *Biondi, S.*, *TNS Oct. 2021 2464-2471*

The GospiGUI Framework for Control and Benchmarking of Readout Electronics Front-Ends. *Adamczewski-Musch, J.*, +, *TNS Aug. 2021 2074-2080*

The Mu3e Data Acquisition. *Augustin, H.*, +, *TNS Aug. 2021 1833-1840*

Versatile Configuration and Control Framework for Real-Time Data Acquisition Systems. *Karcher, N.*, +, *TNS Aug. 2021 1899-1906*

Data analysis

FPGA-Based Real-Time Image Manipulation and Advanced Data Acquisition for 2-D-XRAY Detectors. *Mansour, W.*, +, *TNS Aug. 2021 1927-1932*

Pattern-Matching Unit for Medical Applications. *Leombruni, O.*, +, *TNS Aug. 2021 2140-2145*

Data compression

A Reconfigurable Neural Network ASIC for Detector Front-End Data Compression at the HL-LHC. *Guglielmo, G.D.*, +, *TNS Aug. 2021 2179-2186*

Deep learning (artificial intelligence)

Tau Identification With Deep Neural Networks at the CMS Experiment. *Choudhury, S.*, *TNS Aug. 2021 2194-2200*

Total Ionizing Dose Effects on Multistate HfO_x -Based RRAM Synaptic Array. *Han, X.*, +, *TNS May 2021 756-761*

Deep level transient spectroscopy

Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGaIn/GaN HEMTs. *Wan, P.*, +, *TNS June 2021 1258-1264*

Relating Gain Degradation to Defects Production in Neutron-Irradiated 4H-SiC Transistors. *Dong, P.*, +, *TNS March 2021 312-317*

Deep levels

Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGaIn/GaN HEMTs. *Wan, P.*, +, *TNS June 2021 1258-1264*

Defect states

Defect and Impurity-Complex Depassivation During Electron-Beam Irradiation of GaAs. *Fleetwood, D.M.*, +, *TNS Aug. 2021 1548-1555*

Delay lock loops

20-ps Resolution Clock Distribution Network for a Fast-Timing Single-Photon Detector. *Egidios, N.*, +, *TNS April 2021 434-446*

High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S.*, +, *TNS Aug. 2021 2268-2278*

Density functional theory

Growth of $\text{Cd}_{0.9}\text{Zn}_{0.1}\text{Te}_{1-y}\text{Se}_y$ Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*

Design for testability

A Comprehensive Comparison Between Design for Testability Techniques for Total Dose Testing of Flash-Based FPGAs. *Ibrahim, M.A.*, +, *TNS Aug. 2021 2232-2238*

Design of experiments

Low and Medium Earth-Orbit Error Rates Using Design-of-Experiments and Monte-Carlo Methods. *Hansen, D.L.*, *TNS May 2021 642-650*

Detection algorithms

Correlations Between Panoramic Imagery and Gamma-Ray Background in an Urban Area. *Bandstra, M.S.*, +, *TNS Dec. 2021 2818-2834*

Detectors

A 3-D Neutron Distribution Reconstruction Method Based on the Off-Situ Measurement for Reactor. *Cao, P.*, +, *TNS Dec. 2021 2694-2701*

A Dual Module Parallel Readout System Based on 10 Gb TCP/IP Transmission for HEPs-BPIX Detector. *Li, H.*, +, *TNS Nov. 2021 2624-2629*

Development of Neural Network Model With Explainable AI for Measuring Uranium Enrichment. *Ryu, J.*, +, *TNS Nov. 2021 2670-2681*

FPGA-Based Real-Time Data Acquisition for Ultrafast X-Ray Computed Tomography. *Windisch, D.*, +, *TNS Dec. 2021 2779-2786*

Low-Noise Analog Channel for the Readout of the Si(Li) Detector of the GAPS Experiment. *Manghisoni, M.*, +, *TNS Nov. 2021 2661-2669*

New Models of PADI, an Ultrafast Preamplifier-Discriminator ASIC for Time-of-Flight Measurements. *Ciobanu, M.*, +, *TNS June 2021 1325-1333*

Optimization of the 65-nm CMOS Linear Front-End Circuit for the CMS Pixel Readout at the HL-LHC. *Gaioni, L.*, +, *TNS Nov. 2021 2682-2692*

Deuterium

Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays. *Blanchet, T.*, +, *TNS Aug. 2021 1681-1687*

Device drivers

Analyzing DUE Errors on GPUs With Neutron Irradiation Test and Fault Injection to Control Flow. *Ito, K.*, +, *TNS Aug. 2021 1668-1674*

The GossipGUI Framework for Control and Benchmarking of Readout Electronics Front-Ends. *Adamczewski-Musch, J.*, +, *TNS Aug. 2021 2074-2080*

The ReadoutCard Userspace Driver for the New Alice O^2 Computing System. *Alexopoulos, K.*, +, *TNS Aug. 2021 1876-1883*

Dielectric materials

Simulations of Internal Charging Effects of Artificial Radiation Belt on Dielectric Material. *Zuo, Y.*, +, *TNS May 2021 1120-1128*

Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M.*, +, *TNS May 2021 687-696*

Dielectric thin films

Defect-Induced Phase Transition in Hafnium Oxide Thin Films: Comparing Heavy Ion Irradiation and Oxygen-Engineering Effects. *Vogel, T.*, +, *TNS Aug. 2021 1542-1547*

Differential equations

Complex Formalism of the Linear Beam Dynamics. *Lucas, J.*, +, *TNS March 2021 270-278*

Digital control

Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS. *Wang, J.*, +, *TNS May 2021 913-920*

Digital-analog conversion

The Study of Calibration for the Hybrid Pixel Detector With Single Photon Counting in HEPs-BPIX. *Ding, Y.*, +, *TNS Aug. 2021 2088-2095*

Dipole antennas

NOAA Image Data Acquisition to Determine Soil Moisture in Arequipa, Perú. *Argume, A.*, +, *TNS Aug. 2021 1933-1936*

Direct digital synthesis

FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics. *Marini, F.*, +, *TNS Aug. 2021 1952-1960*

Discriminators

Readout Electronics Prototype of TOF Detectors in CEE of HIRFL. *Lu, J.*, +, *TNS Aug. 2021 1976-1983*

Distributed power generation

Load-Frequency Control With Multimodule Small Modular Reactor Configuration: Modeling and Dynamic Analysis. *Sabir, A.*, +, *TNS July 2021 1367-1380*

Distributed sensors

Operating Temperature Range of Phosphorous-Doped Optical Fiber Dosimeters Exploiting Infrared Radiation-Induced Attenuation. *Morana, A.*, +, *TNS May 2021 906-912*

Doping

Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*

Doppler effect

Mössbauer Spectrometer With Advanced Modulation of Gamma Ray Energy Utilizing Real-Time Industrial Computer. *Kohout, P.*, +, *TNS Aug. 2021 1869-1875*

Dosimeters

Operating Temperature Range of Phosphorous-Doped Optical Fiber Dosimeters Exploiting Infrared Radiation-Induced Attenuation. *Morana, A.*, +, *TNS May 2021 906-912*

TID Effects Induced by ARACOR, ^{60}Co , and ORIATRON Photon Sources in MOS Devices: Impact of Geometry and Materials. *Lambert, D.*, +, *TNS May 2021 991-1001*

Dosimetry

A Charge Collection Equivalent Method for Laser Simulation of Dose Rate Effects With Improved Performance. *Tang, G.*, +, *TNS June 2021 1235-1243*

Characterization of Radiation-Resistant Multimode Optical Fibers for Large-Scale Procurement. *Blanc, J.*, +, *TNS July 2021 1407-1413*

Dosimetry of Thermal Neutron Beamlines at a Pulsed Spallation Source for Application to the Irradiation of Microelectronics. *Cazzaniga, C.*, +, *TNS May 2021 921-927*

Personal Dosimetry in Continuous Photon Radiation Fields With the Dosepix Detector. *Haag, D.*, +, *TNS May 2021 1129-1134*

Radiation Shielding Evaluation of Spacecraft Walls Against Heavy Ions Using Microdosimetry. *Peracchi, S.*, +, *TNS May 2021 897-905*

Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*

Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*

Double beta decay

A Study on Energy Resolution of CANDLES Detector. *Khai, B.T.*, +, *TNS March 2021 368-378*

ADC Nonlinearity Correction for the Majorana Demonstrator. *Abgrall, N.*, +, *TNS March 2021 359-367*

DRAM chips

Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D.*, +, *TNS May 2021 716-723*

Drift chambers

An FPGA-Based Trigger System With Online Track Recognition in COMET Phase-I. *Nakazawa, Y.*, +, *TNS Aug. 2021 2028-2034*

Driver circuits

A 10-Gb/s Driver/Receiver ASIC and Optical Modules for Particle Physics Experiments. *Huang, X.*, +, *TNS Aug. 2021 1998-2004*

Dynamic range

Numerical Simulation Study on Gain Nonlinearity of Microchannel Plate in Photomultiplier Tube. *Guo, L.*, +, *TNS Dec. 2021 2711-2716*

E

Earth orbit

- Low and Medium Earth-Orbit Error Rates Using Design-of-Experiments and Monte-Carlo Methods. *Hansen, D.L., TNS May 2021 642-650*
- Surface Ionizing Dose for Space Applications Estimated With Low Energy Spectra Going Down to Hundreds of Electronvolt. *Inguibert, C., TNS Aug. 2021 1754-1763*

Edge detection

- High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S., TNS Aug. 2021 2268-2278*

Electric breakdown

- Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. *Shawkat, M.S.A., TNS March 2021 279-291*
- Variation of Permittivity and Dark Conductivity of Polyimide and FR4 With Electron Dose by Experiments. *Song, S., TNS Sept. 2021 2375-2382*

Electric fields

- Coupling Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Solar Array Drive Assembly. *Wang, X., TNS July 2021 1399-1406*
- Simulations of Internal Charging Effects of Artificial Radiation Belt on Dielectric Material. *Zuo, Y., TNS May 2021 1120-1128*

Electric sensing devices

- On-Orbit Pile-Up Detection and Digital Pulse Shape Measurement Results in the Radiation Telescope. *Ueno, H., TNS Aug. 2021 1764-1771*

Electrical resistivity

- Influence of Hydrogen Treatment on Electrical Properties of Detector-Grade CdMnTe:In Crystals. *Yu, P., TNS April 2021 458-462*

Electro-optical modulation

- Optical Single-Event Transients Induced in Integrated Silicon-Photonic Waveguides by Two-Photon Absorption. *Tzintzarov, G.N., TNS May 2021 785-792*

Electrodes

- Bias Polarity Switching-Type TlBr X-Ray Imager. *Takagi, K., TNS Sept. 2021 2435-2439*

Electroluminescence

- Gamma-Irradiation-Accelerated Degradation in AlGaIn-Based UVC LEDs Under Electrical Stress. *Wang, Y., TNS Feb. 2021 149-155*

Electromagnetic fields

- Analytical RF Pulse Heating Analysis for High Gradient Accelerating Structures. *Gonzalez-Iglesias, D., TNS Feb. 2021 78-91*

Electromagnetic interference

- FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics. *Marini, F., TNS Aug. 2021 1952-1960*

Electromagnetic pulse

- A Code Verification for the Cavity SGEMP Simulation Code LASER-SGEMP. *Xu, Z., TNS June 2021 1251-1257*

Electron accelerators

- Accelerated Deep Reinforcement Learning for Fast Feedback of Beam Dynamics at KARA. *Wang, W., TNS Aug. 2021 1794-1800*
- Experimental Research on HLS-II Performance by Means of the RF Phase Modulation Technique. *Zhao, Y., TNS Feb. 2021 92-100*
- MicroTCA.4-Based Low-Level RF for Continuous Wave Mode Operation at the ELBE Accelerator. *Zenker, K., TNS Sept. 2021 2326-2333*
- Online Detuning Computation and Quench Detection for Superconducting Resonators. *Bellandi, A., TNS April 2021 385-393*
- Symmetry Exploitation in Orbit Feedback Systems of Synchrotrons for Computational Efficiency. *Kempf, I., TNS March 2021 258-269*

Electron beam effects

- Coupling Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Solar Array Drive Assembly. *Wang, X., TNS July 2021 1399-1406*
- Defect and Impurity-Complex Depassivation During Electron-Beam Irradiation of GaAs. *Fleetwood, D.M., TNS Aug. 2021 1548-1555*
- Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGaIn/GaN HEMTs. *Wan, P., TNS June 2021 1258-1264*
- Electron Irradiation Effect on Van Der Waals Transistor for High-Detectivity Near-Infrared Photodetectors. *Pengfei, H., TNS March 2021 318-324*

- Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. *Esposito, M.G., TNS May 2021 724-732*

- Variation of Permittivity and Dark Conductivity of Polyimide and FR4 With Electron Dose by Experiments. *Song, S., TNS Sept. 2021 2375-2382*

Electron detection

- Development of L-Bent Positron Detectors for μ SR Applications at China Spallation Neutron Source. *Pan, Z., TNS Sept. 2021 2407-2413*

Electron multiplier detectors

- Dosimetry of Thermal Neutron Beamlines at a Pulsed Spallation Source for Application to the Irradiation of Microelectronics. *Cazzaniga, C., TNS May 2021 921-927*

Electron traps

- Combined Effects of Proton Irradiation and Forward Gate-Bias Stress on the Interface Traps in AlGaIn/GaN Heterostructure. *Zhu, T., TNS Nov. 2021 2616-2623*

- Degradation Study of InGaAsN p-i-n Solar Cell Under 1-MeV Electron Irradiation. *Levillayer, M., TNS Aug. 2021 1694-1700*

- Impact of TID on Within-Wafer Variability of Radiation-Hardened SOI Wafers. *Zheng, Q., TNS July 2021 1423-1429*

- Impacts of Through-Silicon Vias on Total-Ionizing-Dose Effects and Low-Frequency Noise in FinFETs. *Li, K., TNS May 2021 740-747*

- Influence of Buried Oxide Si⁺ Implantation on TID and NBTI Effects for PDSOI MOSFETs. *Peng, C., TNS Feb. 2021 156-164*

- Investigation by Thermoluminescence of the Ionization and Annealing Processes in Irradiated Ge-Doped Silica Fiber Preform. *Gutilla, A., TNS Aug. 2021 1556-1564*

- Total Ionizing Dose Responses of 22-nm FDSOI and 14-nm Bulk FinFET Charge-Trap Transistors. *Brewer, R.M., TNS May 2021 677-686*

Electronic engineering computing

- Analysis of Single-Event Transients (SETs) Using Machine Learning (ML) and Ionizing Radiation Effects Spectroscopy (IRES). *Loveless, T.D., TNS Aug. 2021 1600-1606*

- TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T., TNS May 2021 603-610*

Electrostatic discharge

- Variation of Permittivity and Dark Conductivity of Polyimide and FR4 With Electron Dose by Experiments. *Song, S., TNS Sept. 2021 2375-2382*

Elemental semiconductors

- Acquiring and Modeling of Si Solar-Cell Transient Response to Pulsed X-Ray. *Pan, L., TNS May 2021 1152-1160*

- Analysis of SEGR in Silicon Planar Gate Super-Junction Power MOSFETs. *Muthuseenu, K., TNS May 2021 611-616*

- Backside Laser Testing of Single-Event Effects in GaN-on-Si Power HEMTs. *Ngom, C., TNS Aug. 2021 1642-1650*

- Charge Trapping and Transconductance Degradation in Irradiated 3-D Sequentially Integrated FDSOI MOSFETs. *Toguchi, S., TNS May 2021 707-715*

- Comparison of Single-Event Transients in an Epitaxial Silicon Diode Resulting From Heavy-Ion-, Focused X-Ray-, and Pulsed Laser-Induced Charge Generation. *Ryder, K.L., TNS May 2021 626-633*

- Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C., TNS June 2021 1244-1250*

- Heavy-Ion Testing Method and Results of Normally OFF GaN-Based High-Electron-Mobility Transistor. *Sauveplane, J., TNS Oct. 2021 2488-2495*

- Impact of TID on Within-Wafer Variability of Radiation-Hardened SOI Wafers. *Zheng, Q., TNS July 2021 1423-1429*

- Influence of Buried Oxide Si⁺ Implantation on TID and NBTI Effects for PDSOI MOSFETs. *Peng, C., TNS Feb. 2021 156-164*

- Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. *Esposito, M.G., TNS May 2021 724-732*

- Investigation by Thermoluminescence of the Ionization and Annealing Processes in Irradiated Ge-Doped Silica Fiber Preform. *Gutilla, A., TNS Aug. 2021 1556-1564*

- LET and Range Characteristics of Proton Recoil Ions in Gallium Nitride (GaN). *Osheroff, J.M., TNS May 2021 597-602*

- Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. *Shawkat, M.S.A.*, +, *TNS March 2021 279-291*
- Optical Single-Event Transients Induced in Integrated Silicon-Photonic Waveguides by Two-Photon Absorption. *Tzintzarov, G.N.*, +, *TNS May 2021 785-792*
- Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X.*, +, *TNS Jan. 2021 27-35*
- Relating Gain Degradation to Defects Production in Neutron-Irradiated 4H-SiC Transistors. *Dong, P.*, +, *TNS March 2021 312-317*
- Role of Electron-Induced Coulomb Interactions to the Total SEU Rate During Earth and JUICE Missions. *Caron, P.*, +, *TNS Aug. 2021 1607-1612*
- Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*
- Simulation of Pulsed-Laser-Induced Testing in Microelectronic Devices. *Ryder, L.D.*, +, *TNS Oct. 2021 2496-2507*
- Simulation Study on the Effect of Constant Hole Length of Curved Diverging Collimators for Radiation Monitoring Systems. *Cha, H.*, +, *TNS May 2021 1135-1143*
- Single-Event Transient Response of Vertical and Lateral Waveguide-Integrated Germanium Photodiodes. *Ryder, L.D.*, +, *TNS May 2021 801-806*
- Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs. *Rony, M.W.*, +, *TNS May 2021 807-814*
- TID and Heavy-Ion Performance of an RHBD Multichannel Digitizer in 180-nm CMOS. *Quilligan, G.*, +, *TNS July 2021 1414-1422*
- TID Degradation Mechanisms in 16-nm Bulk FinFETs Irradiated to Ultra-high Doses. *Ma, T.*, +, *TNS Aug. 2021 1571-1578*
- TID Response and Radiation-Enhanced Hot-Carrier Degradation in 65-nm nMOSFETs: Concerns on the Layout-Dependent Effects. *Ren, Z.*, +, *TNS Aug. 2021 1565-1570*
- Elementary particle jets**
- Design and Beam Test Results for the 2-D Projective sPHENIX Electromagnetic Calorimeter Prototype. *Aidala, C.A.*, +, *TNS Feb. 2021 173-181*
- Ellis, Tom**
- In Memoriam Tom Ellis. *TNS May 2021 502*
- Embedded systems**
- OpenIPMC: A Free and Open-Source Intelligent Platform Management Controller Software. *Calligaris, L.*, +, *TNS Aug. 2021 2105-2112*
- Radiation Effects in Advanced and Emerging Nonvolatile Memories. *Martinella, M.J.*, +, *TNS May 2021 546-572*
- Energy measurement**
- On-Orbit Pile-Up Detection and Digital Pulse Shape Measurement Results in the Radiation Telescope. *Ueno, H.*, +, *TNS Aug. 2021 1764-1771*
- Erbium**
- Combined Temperature and Radiation Effects on the Gain of Er- and Er-Yb-Doped Fiber Amplifiers. *Aubry, M.*, +, *TNS May 2021 793-800*
- Error correction**
- Radiation Tolerance of Online Trigger System for COMET Phase-I. *Dekkers, S.*, +, *TNS Aug. 2021 2020-2027*
- Error correction codes**
- Identifying Radiation-Induced Micro-SEFIs in SRAM FPGAs. *Perez-Celis, A.*, +, *TNS Oct. 2021 2480-2487*
- Radiation-Hardened Cortex-R4F System-on-Chip Prototype With Total Ionizing Dose Dynamic Compensation in 28-nm FD-SOI. *Abouzeid, F.*, +, *TNS May 2021 1040-1044*
- Radiation-Induced Error Mitigation by Read-Retry Technique for MLC 3-D NAND Flash Memory. *Kumari, P.*, +, *TNS May 2021 1032-1039*
- Error statistics**
- A 24-Channel Digitizer With a JESD204B-Compliant Serial Interface for High-Speed Detectors. *Grace, C.R.*, +, *TNS April 2021 426-433*
- Depth Dependence of Threshold Voltage Shift in 3-D Flash Memories Exposed to X-Rays. *Bagatin, M.*, +, *TNS May 2021 659-664*
- Evaluating and Mitigating Neutrons Effects on COTS EdgeAI Accelerators. *Blower, S.*, +, *TNS Aug. 2021 1719-1726*
- Ethernet**
- FPGA-Based Real-Time Data Acquisition for Ultrafast X-Ray Computed Tomography. *Windisch, D.*, +, *TNS Dec. 2021 2779-2786*
- Europium**
- Comparison of Photoluminescence and Scintillation Properties Between Lu₂O₃:Eu Single Crystal and Transparent Ceramic. *Haihang, Y.*, +, *TNS April 2021 477-482*
- Explosives**
- Performances of C-BORD's Tagged Neutron Inspection System for Explosives and Illicit Drugs Detection in Cargo Containers. *Sardet, A.*, +, *TNS March 2021 346-353*
- Extrapolation**
- A Code Verification for the Cavity SGEMP Simulation Code LASER-SGEMP. *Xu, Z.*, +, *TNS June 2021 1251-1257*
- F**
- Failure analysis**
- How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F.*, +, *TNS May 2021 865-872*
- Impact of Terrestrial Neutrons on the Reliability of SiC VD-MOSFET Technologies. *Martinella, C.*, +, *TNS May 2021 634-641*
- Neutron-Induced Failure Dependence on Reverse Gate Voltage for SiC Power MOSFETs in Atmospheric Environment. *Niskanen, K.*, +, *TNS Aug. 2021 1623-1632*
- Fault diagnosis**
- Analysis and Mitigation of Single-Event Gate Rupture in VDMOS With Termination Structure. *Chen, Z.*, +, *TNS June 2021 1272-1278*
- Investigating How Software Characteristics Impact the Effectiveness of Automated Software Fault Diagnosis. *James, B.*, +, *TNS May 2021 1014-1022*
- Microprocessor Error Diagnosis by Trace Monitoring Under Laser Testing. *Pena-Fernandez, M.*, +, *TNS Aug. 2021 1651-1659*
- Feature extraction**
- Correlations Between Panoramic Imagery and Gamma-Ray Background in an Urban Area. *Bandstra, M.S.*, +, *TNS Dec. 2021 2818-2834*
- Development of Neural Network Model With Explainable AI for Measuring Uranium Enrichment. *Ryu, J.*, +, *TNS Nov. 2021 2670-2681*
- Feedback**
- L₁-Adaptive Robust Control Design for a Pressurized Water-Type Nuclear Power Plant. *Vajpayee, V.*, +, *TNS July 2021 1381-1398*
- Accelerated Deep Reinforcement Learning for Fast Feedback of Beam Dynamics at KARA. *Wang, W.*, +, *TNS Aug. 2021 1794-1800*
- Integrated Real-Time Supervisory Management for Off-Normal-Event Handling and Feedback Control of Tokamak Plasmas. *Vu, T.*, +, *TNS Aug. 2021 1855-1861*
- Symmetry Exploitation in Orbit Feedback Systems of Synchrotrons for Computational Efficiency. *Kempf, I.*, +, *TNS March 2021 258-269*
- The Electronics Design of Real-Time Feedback Control System in KTX. *Song, S.*, +, *TNS Aug. 2021 2066-2073*
- Fiber optic sensors**
- Distributed Temperature and Strain Fiber-Based Sensing in Radiation Environment. *Sabatier, C.*, +, *TNS Aug. 2021 1675-1680*
- Operating Temperature Range of Phosphorous-Doped Optical Fiber Dosimeters Exploiting Infrared Radiation-Induced Attenuation. *Morana, A.*, +, *TNS May 2021 906-912*
- Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays. *Blanchet, T.*, +, *TNS Aug. 2021 1681-1687*
- Field effect transistors**
- Performance of the Data-Handling Hub Readout System for the Belle II Pixel Detector. *Huber, S.*, +, *TNS Aug. 2021 1961-1967*
- Field emitter arrays**
- Diagonal 4-in ZnO Nanowire Cold Cathode Flat-Panel X-Ray Source: Preparation and Projection Imaging Properties. *Wang, L.*, +, *TNS March 2021 338-345*
- Field programmable gate arrays**
- A 2-D Clustering Algorithm for Data Reconstruction in Vertex Detector of ILC. *Zhao, R.*, +, *TNS Nov. 2021 2647-2654*
- A Clock Distribution and Synchronization Scheme Over Optical Links for Large-Scale Physics Experiments. *Hu, Y.*, +, *TNS June 2021 1351-1358*

- A Comprehensive Comparison Between Design for Testability Techniques for Total Dose Testing of Flash-Based FPGAs. *Ibrahim, M.A.*, +, *TNS Aug. 2021 2232-2238*
- A Dual Module Parallel Readout System Based on 10 Gb TCP/IP Transmission for HEPS-BPIX Detector. *Li, H.*, +, *TNS Nov. 2021 2624-2629*
- A Highly Linear FPGA-Based TDC and a Low-Power Multichannel Readout ASIC With a Shared SAR ADC for SiPM Detectors. *Tang, Y.*, +, *TNS Aug. 2021 2286-2293*
- A Reconfigurable Neural Network ASIC for Detector Front-End Data Compression at the HL-LHC. *Guglielmo, G.D.*, +, *TNS Aug. 2021 2179-2186*
- A Revised Version of the ATLAS Tile Calorimeter Link Daughterboard for the HL-LHC. *Santurio, E.V.*, +, *TNS Sept. 2021 2414-2420*
- A Timing, Trigger, and Control System With Picosecond Precision Based on 10 Gbit/s Passive Optical Networks for High-Energy Physics. *Mendes, E.*, +, *TNS April 2021 447-457*
- A Zynq-Based Flexible ADC Architecture Combining Real-Time Data Streaming and Transient Recording. *Garola, A.R.*, +, *TNS Feb. 2021 245-249*
- Accelerated Deep Reinforcement Learning for Fast Feedback of Beam Dynamics at KARA. *Wang, W.*, +, *TNS Aug. 2021 1794-1800*
- An FPGA-Based Trigger System With Online Track Recognition in COMET Phase-I. *Nakazawa, Y.*, +, *TNS Aug. 2021 2028-2034*
- Application of Heterogeneous Computing Techniques for the Development of an Image-Based Hot Spot Detection System Using MTCA. *Esquembri, S.*, +, *TNS Aug. 2021 2151-2158*
- ATLAS Hardware-Based Endcap Muon Trigger for Future Upgrades. *Mino, Y.*, *TNS Aug. 2021 2012-2019*
- Automatic Test System of the Back-End Card for the JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2121-2126*
- CentOS Linux for the ATLAS MUCTPI Upgrade. *Spiwoks, R.*, +, *TNS Aug. 2021 2127-2131*
- Data Acquisition System for the COMPASS+/ AMBER Experiment. *Frolov, V.*, +, *TNS Aug. 2021 1891-1898*
- Design of Time-to-Digital Converters for Time-Over-Threshold Measurement in Picosecond Timing Detectors. *Wu, B.*, +, *TNS April 2021 470-476*
- Development of Multichannel High Time Resolution Data Acquisition System for TOT-ASIC. *Sato, S.*, +, *TNS Aug. 2021 1801-1806*
- Diagnostic Data Integration Using Deep Neural Networks for Real-Time Plasma Analysis. *Rigoni Garola, A.*, +, *TNS Aug. 2021 2165-2172*
- Emulating Radiation-Induced Multicell Upset Patterns in SRAM FPGAs With Fault Injection. *Perez-Celis, A.*, +, *TNS Aug. 2021 1594-1599*
- FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics. *Marini, F.*, +, *TNS Aug. 2021 1952-1960*
- FPGA-Based Real-Time Data Acquisition for Ultrafast X-Ray Computed Tomography. *Windisch, D.*, +, *TNS Dec. 2021 2779-2786*
- FPGA-Based Real-Time Image Manipulation and Advanced Data Acquisition for 2-D-XRAY Detectors. *Mansour, W.*, +, *TNS Aug. 2021 1927-1932*
- Frame-Level Intermodular Configuration Scrubbing of On-Detector FPGAs for the ARICH at Belle II. *Giordano, R.*, +, *TNS Dec. 2021 2810-2817*
- Gigabit Ethernet Daisy Chain on FPGA for COMET Readout Electronics. *Hamada, E.*, +, *TNS Aug. 2021 1968-1975*
- Hi'Beam-S: A Monolithic Silicon Pixel Sensor-Based Prototype Particle Tracking System for HIAF. *Yang, H.*, +, *TNS Dec. 2021 2794-2800*
- How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F.*, +, *TNS May 2021 865-872*
- Identifying Radiation-Induced Micro-SEFIs in SRAM FPGAs. *Perez-Celis, A.*, +, *TNS Oct. 2021 2480-2487*
- Impact of Single-Event Upsets on Convolutional Neural Networks in Xilinx Zynq FPGAs. *Wang, H.*, +, *TNS April 2021 394-401*
- Iterative Retina for High Track Multiplicity in a Barrel-Shaped Tracker and High Magnetic Field. *Deng, W.*, +, *TNS Aug. 2021 1937-1943*
- LLRF Controller for High Current Cyclotron-Based BNCT System. *Fu, X.*, +, *TNS Oct. 2021 2452-2458*
- Mössbauer Spectrometer With Advanced Modulation of Gamma Ray Energy Utilizing Real-Time Industrial Computer. *Kohout, P.*, +, *TNS Aug. 2021 1869-1875*
- MPV—Parallel Readout Architecture for the VME Data Acquisition System. *Baba, H.*, +, *TNS Aug. 2021 1841-1848*
- Neutron Radiation Testing of a TMR VexRiscv Soft Processor on SRAM-Based FPGAs. *Wilson, A.E.*, +, *TNS May 2021 1054-1060*
- Online Detuning Computation and Quench Detection for Superconducting Resonators. *Bellandi, A.*, +, *TNS April 2021 385-393*
- OpenPMC: A Free and Open-Source Intelligent Platform Management Controller Software. *Calligaris, L.*, +, *TNS Aug. 2021 2105-2112*
- Partial TMR for Improving the Soft Error Reliability of SRAM-Based FPGA Designs. *Keller, A.M.*, +, *TNS May 2021 1023-1031*
- Pattern-Matching Unit for Medical Applications. *Leombruni, O.*, +, *TNS Aug. 2021 2140-2145*
- PCI-Express Based High-Speed Readout for the Belle II DAQ Upgrade. *Zhou, Q.D.*, +, *TNS Aug. 2021 1818-1825*
- Performance of the Unified Readout System of Belle II. *Nakao, M.*, +, *TNS Aug. 2021 1826-1832*
- Prototype of Clock and Timing Distribution and Synchronization Electronics for SHINE. *Gu, J.*, +, *TNS Aug. 2021 2113-2120*
- Radiation Tolerance of Online Trigger System for COMET Phase-I. *Dekkers, S.*, +, *TNS Aug. 2021 2020-2027*
- Raw Data Processing Using Modern Hardware for Inspection of Objects in X-Ray Baggage Inspection Systems. *Malarvizhi, S.*, +, *TNS June 2021 1296-1303*
- Readout Electronics Prototype of TOF Detectors in CEE of HIRFL. *Lu, J.*, +, *TNS Aug. 2021 1976-1983*
- Readout Firmware of the Vertex Locator for LHCb Run 3 and Beyond. *Hennesy, K.*, +, *TNS Oct. 2021 2472-2479*
- Real-Time Implementation of the Neutron/Gamma Discrimination in an FPGA-Based DAQ MTCA Platform Using a Convolutional Neural Network. *Astrain, M.*, +, *TNS Aug. 2021 2173-2178*
- Real-Time Particle Identification in Liquid Xenon. *Nicolo, D.*, +, *TNS Nov. 2021 2630-2636*
- Real-Time Signal Processing for Mitigating SiPM Dark Noise Effects in a Scintillating Neutron Detector. *Pritchard, K.*, +, *TNS July 2021 1519-1527*
- Safe and Reusable Approach for Pin-to-Port Assignment in Multiboard FPGA Data Acquisition and Control Designs. *Kruszewski, M.*, +, *TNS June 2021 1186-1193*
- Single Event Effects Characterization of the Programmable Logic of Xilinx Zynq-7000 FPGA Using Very/Ultra High-Energy Heavy Ions. *Vlagkoulis, V.*, +, *TNS Jan. 2021 36-45*
- Study of Using Machine Learning for Level 1 Trigger Decision in JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2187-2193*
- The Electronics Design of Real-Time Feedback Control System in KTX. *Song, S.*, +, *TNS Aug. 2021 2066-2073*
- The Mu3e Data Acquisition. *Augustin, H.*, +, *TNS Aug. 2021 1833-1840*
- The ReadoutCard Userspace Driver for the New Alice O² Computing System. *Alexopoulos, K.*, +, *TNS Aug. 2021 1876-1883*
- Updates on Testing Microprocessors Effectively. *Quinn, H.*, +, *TNS May 2021 842-849*
- Versatile Configuration and Control Framework for Real-Time Data Acquisition Systems. *Karcher, N.*, +, *TNS Aug. 2021 1899-1906*
- White Rabbit Time Synchronization for Radiation Detector Readout Electronics. *Hennig, W.*, +, *TNS Aug. 2021 2059-2065*
- Filled polymers**
- Thermal Neutron Absorption in Printed Circuit Boards. *Platt, S.P.*, +, *TNS April 2021 463-469*
- Finite element analysis**
- Analytical RF Pulse Heating Analysis for High Gradient Accelerating Structures. *Gonzalez-Iglesias, D.*, +, *TNS Feb. 2021 78-91*
- Firmware**
- A Revised Version of the ATLAS Tile Calorimeter Link Daughterboard for the HL-LHC. *Santurio, E.V.*, +, *TNS Sept. 2021 2414-2420*
- Multiplexing Firmware Prototypes for the Global Trigger Subsystem of ATLAS Phase-II Upgrade. *Bonini, F.*, +, *TNS Sept. 2021 2421-2428*
- OpenPMC: A Free and Open-Source Intelligent Platform Management Controller Software. *Calligaris, L.*, +, *TNS Aug. 2021 2105-2112*

- Operational Experience and Evolution of the ATLAS Tile Hadronic Calorimeter Read-Out Drivers. *Valero, A., TNS Aug. 2021 1807-1810*
- Performance of the Unified Readout System of Belle II. *Nakao, M., +, TNS Aug. 2021 1826-1832*
- Radiation Tolerance of Online Trigger System for COMET Phase-I. *Dekekers, S., +, TNS Aug. 2021 2020-2027*
- Readout Firmware of the Vertex Locator for LHCb Run 3 and Beyond. *Hennesy, K., +, TNS Oct. 2021 2472-2479*
- Study of Using Machine Learning for Level 1 Trigger Decision in JUNO Experiment. *Clerbaux, B., +, TNS Aug. 2021 2187-2193*
- Fission reactor accidents**
- Simulation Study on the Effect of Constant Hole Length of Curved Diverging Collimators for Radiation Monitoring Systems. *Cha, H., +, TNS May 2021 1135-1143*
- Fission reactor coolants**
- Proportional-Integral Extended State Observer for Monitoring Nuclear Reactors. *Dong, Z., +, TNS June 2021 1207-1221*
- Fission reactor cooling**
- Proportional-Integral Extended State Observer for Monitoring Nuclear Reactors. *Dong, Z., +, TNS June 2021 1207-1221*
- Fission reactor core control**
- Proportional-Integral Extended State Observer for Monitoring Nuclear Reactors. *Dong, Z., +, TNS June 2021 1207-1221*
- Fission reactor design**
- Load-Frequency Control With Multimodule Small Modular Reactor Configuration: Modeling and Dynamic Analysis. *Sabir, A., +, TNS July 2021 1367-1380*
- Fission reactor fuel**
- Proportional-Integral Extended State Observer for Monitoring Nuclear Reactors. *Dong, Z., +, TNS June 2021 1207-1221*
- Fission reactor materials**
- Improved Localization Precision and Angular Resolution of a Cylindrical, Time-Encoded Imaging System From Adaptive Detector Movements. *Shah, N.P., +, TNS April 2021 410-425*
- Fission reactor safety**
- Proportional-Integral Extended State Observer for Monitoring Nuclear Reactors. *Dong, Z., +, TNS June 2021 1207-1221*
- Flash memories**
- A Heavy-Ion Beam Monitor Based on 3-D NAND Flash Memories. *Gerardin, S., +, TNS May 2021 884-889*
- Analysis of Ion-Induced SEFI and SEL Phenomena in 90 nm NOR Flash Memory. *Ju, A., +, TNS Oct. 2021 2508-2515*
- Depth Dependence of Threshold Voltage Shift in 3-D Flash Memories Exposed to X-Rays. *Bagatin, M., +, TNS May 2021 659-664*
- Gamma-Ray-Induced Error Pattern Analysis for MLC 3-D NAND Flash Memories. *Surendranathan, U., +, TNS May 2021 733-739*
- Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators. *Xiao, T.P., +, TNS May 2021 762-769*
- Observation of Low-Energy Proton Direct Ionization in a 72-Layer 3-D NAND Flash Memory. *Wilcox, E.P., +, TNS May 2021 835-841*
- Radiation Effects in Advanced and Emerging Nonvolatile Memories. *Mari-nella, M.J., TNS May 2021 546-572*
- Radiation-Induced Error Mitigation by Read-Retry Technique for MLC 3-D NAND Flash Memory. *Kumari, P., +, TNS May 2021 1032-1039*
- Total Ionizing Dose Effects on Physical Unclonable Function From NAND Flash Memory. *Sakib, S., +, TNS July 2021 1445-1453*
- Flavor model**
- Prototype Data Acquisition and Slow Control Systems for the Mu2e Experiment. *Gioiosa, A., +, TNS Aug. 2021 1862-1868*
- The Mu3e Data Acquisition. *Augustin, H., +, TNS Aug. 2021 1833-1840*
- Flexible electronics**
- Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS. *Wang, J., +, TNS May 2021 913-920*
- Flip-flops**
- Analysis of Ion-Induced SEFI and SEL Phenomena in 90 nm NOR Flash Memory. *Ju, A., +, TNS Oct. 2021 2508-2515*
- Intrinsic Vulnerability to Soft Errors and a Mitigation Technique by Layout Optimization on DICE Flip Flops in a 65-nm Bulk Process. *Mori, F., +, TNS Aug. 2021 1727-1735*
- Investigation of Buried-Well Potential Perturbation Effects on SEU in SOI DICE-Based Flip-Flop Under Proton Irradiation. *Sakamoto, K., +, TNS June 2021 1222-1227*
- Multiscale System Modeling of Single-Event-Induced Faults in Advanced Node Processors. *Cannon, M., +, TNS May 2021 980-990*
- Single-Event Upsets in a 7-nm Bulk FinFET Technology With Analysis of Threshold Voltage Dependence. *D'Amico, J.V., +, TNS May 2021 823-829*
- TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T., +, TNS May 2021 603-610*
- Floating point arithmetic**
- How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F., +, TNS May 2021 865-872*
- Fluorescence**
- Self-Absorption Correction in X-Ray Fluorescence-Computed Tomography With Deep Convolutional Neural Network. *Gao, B., +, TNS June 2021 1194-1206*
- Fluorine**
- Effects of Ionization and Displacement Damage in AlGaN/GaN HEMT Devices Caused by Various Heavy Ions. *Wan, P., +, TNS June 2021 1265-1271*
- Focal planes**
- Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X., +, TNS Jan. 2021 27-35*
- Fokker-Planck equation**
- Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G., +, TNS Jan. 2021 9-20*
- Forward error correction**
- A Revised Version of the ATLAS Tile Calorimeter Link Daughterboard for the HL-LHC. *Santurio, E.V., +, TNS Sept. 2021 2414-2420*
- Fourier analysis**
- The Electronics Design of Real-Time Feedback Control System in KTX. *Song, S., +, TNS Aug. 2021 2066-2073*
- Free electron lasers**
- High-Level Software Interface to the LLRF System Developed for the European Spallation Source Facility. *Klys, K., +, TNS Aug. 2021 2132-2139*
- Online Detuning Computation and Quench Detection for Superconducting Resonators. *Bellandi, A., +, TNS April 2021 385-393*
- Optimization of Beam Arrival and Flight Time Measurement System Based on Cavity Monitors at the SXFEL. *Cao, S., +, TNS Jan. 2021 2-8*
- Prototype of Clock and Timing Distribution and Synchronization Electronics for SHINE. *Gu, J., +, TNS Aug. 2021 2113-2120*
- The MiniSDD-Based 1-Mpixel Camera of the DSSC Project for the European XFEL. *Porro, M., +, TNS June 2021 1334-1350*
- Frequency control**
- Load-Frequency Control With Multimodule Small Modular Reactor Configuration: Modeling and Dynamic Analysis. *Sabir, A., +, TNS July 2021 1367-1380*
- Fusion reactor instrumentation**
- The Electronics Design of Real-Time Feedback Control System in KTX. *Song, S., +, TNS Aug. 2021 2066-2073*

G

Galactic cosmic rays

Radiation Shielding Evaluation of Spacecraft Walls Against Heavy Ions Using Microdosimetry. *Peracchi, S., +, TNS May 2021 897-905*

Gallium arsenide

Defect and Impurity-Complex Depassivation During Electron-Beam Irradiation of GaAs. *Fleetwood, D.M., +, TNS Aug. 2021 1548-1555*

Degradation Study of InGaAsN p-i-n Solar Cell Under 1-MeV Electron Irradiation. *Levillayer, M., +, TNS Aug. 2021 1694-1700*

Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M., +, TNS May 2021 687-696*

Gallium compounds

- Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K.*, +, *TNS June 2021 1319-1324*
- Backside Laser Testing of Single-Event Effects in GaN-on-Si Power HEMTs. *Ngom, C.*, +, *TNS Aug. 2021 1642-1650*
- Dark Current Random Telegraph Signals in Short-Wavelength Infrared Image Sensors Based on InGaAs. *Virmontois, C.*, +, *TNS May 2021 770-776*
- Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGaIn/GaN HEMTs. *Wan, P.*, +, *TNS June 2021 1258-1264*
- Effects of Ionization and Displacement Damage in AlGaIn/GaN HEMT Devices Caused by Various Heavy Ions. *Wan, P.*, +, *TNS June 2021 1265-1271*
- Gamma-Irradiation-Accelerated Degradation in AlGaIn-Based UVC LEDs Under Electrical Stress. *Wang, Y.*, +, *TNS Feb. 2021 149-155*
- Heavy-Ion Testing Method and Results of Normally OFF GaN-Based High-Electron-Mobility Transistor. *Sauveplane, J.*, +, *TNS Oct. 2021 2488-2495*
- Hydrogen-Related Recovery Effect of AlGaIn/GaN High-Electron-Mobility Transistors Irradiated by High-Fluence Protons. *Chen, Z.*, +, *TNS Feb. 2021 118-123*
- LET and Range Characteristics of Proton Recoil Ions in Gallium Nitride (GaN). *Osheroff, J.M.*, +, *TNS May 2021 597-602*
- Single Event Burnout Hardening of Enhancement Mode HEMTs With Double Field Plates. *Zhen, Z.*, +, *TNS Sept. 2021 2358-2366*

Gallium nitride

- Combined Effects of Proton Irradiation and Forward Gate-Bias Stress on the Interface Traps in AlGaIn/GaN Heterostructure. *Zhu, T.*, +, *TNS Nov. 2021 2616-2623*

Gamma-ray apparatus

- Polaris-LAMP: Multi-Modal 3-D Image Reconstruction With a Commercial Gamma-Ray Imager. *Hecla, J.*, +, *TNS Oct. 2021 2539-2549*

Gamma-ray astronomy

- The Stereoscopic Analog Trigger of the MAGIC Telescopes. *Dazzi, F.*, +, *TNS July 2021 1473-1486*

Gamma-ray detection

- 3-D Object Tracking in Panoramic Video and LiDAR for Radiological Source-Object Attribution and Improved Source Detection. *Marshall, M.R.*, +, *TNS Feb. 2021 189-202*
- A Development of a 40-Gb/s Readout Interface STARE for the AGATA Project. *Karkour, N.*, +, *TNS Aug. 2021 2005-2011*
- A New DCC Software for $4\pi\beta(\text{LS}) - \gamma$ Coincidence Counting. *Zhong, K.*, +, *TNS Aug. 2021 1920-1926*
- A Study on Energy Resolution of CANDLES Detector. *Khai, B.T.*, +, *TNS March 2021 368-378*
- Application of a Simple, Spiking, Locally Competitive Algorithm to Radionuclide Identification. *Carson, M.*, +, *TNS March 2021 292-304*
- Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K.*, +, *TNS June 2021 1319-1324*
- Data Acquisition System for Underwater *In Situ* Gamma Radiation Spectrometer. *Yuan, J.*, +, *TNS Aug. 2021 1849-1854*
- Design and Implementation of a Portable High-Performance Gamma-Ray Camera. *Zhu, B.*, +, *TNS June 2021 1309-1318*
- Double-Photon Emission Imaging With High-Resolution Si/CdTe Compton Cameras. *Orita, T.*, +, *TNS Aug. 2021 2279-2285*
- Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*
- Evaluation of Timepix3 Si and CdTe Hybrid-Pixel Detectors' Spectrometric Performances on X- and Gamma-Rays. *Amoyal, G.*, +, *TNS Feb. 2021 229-235*
- Growth of $\text{Cd}_{0.9}\text{Zn}_{0.1}\text{Te}_{1-y}\text{Se}_y$ Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*
- Improvement in Plastic Scintillator with Loading of BaFBr:Eu^{2+} Radioluminescence Phosphor. *Rajakrishna, K.*, +, *TNS June 2021 1286-1295*
- Improvement on the Temporal Response of CZT γ -Ray Detector by Infrared Illumination. *Chen, X.*, +, *TNS Oct. 2021 2533-2538*
- Neutron Response of the EJ-254 Boron-Loaded Plastic Scintillator. *Gabella, G.*, +, *TNS Jan. 2021 46-53*

- Neutron-Stimulated Gamma Ray Measurements for Chlorine Detection. *Kavetskiy, A.*, +, *TNS July 2021 1495-1504*
- Performances of C-BORD's Tagged Neutron Inspection System for Explosives and Illicit Drugs Detection in Cargo Containers. *Sardet, A.*, +, *TNS March 2021 346-353*
- Polaris-LAMP: Multi-Modal 3-D Image Reconstruction With a Commercial Gamma-Ray Imager. *Hecla, J.*, +, *TNS Oct. 2021 2539-2549*
- Preprocessing Energy Intervals on Spectrum for Real-Time Radionuclide Identification. *Kwon, I.*, +, *TNS Aug. 2021 2202-2209*
- Row-Column Readout Method to Mitigate Radiographic-Image Blurring From Multipixel Events in a Coded-Aperture Imaging System. *Boo, J.*, +, *TNS May 2021 1175-1183*
- Segmented HPGe Detector for Nuclear Reactions Research. *Sokolov, A.*, +, *TNS Jan. 2021 54-58*
- Simulation Study on the Effect of Constant Hole Length of Curved Diverging Collimators for Radiation Monitoring Systems. *Cha, H.*, +, *TNS May 2021 1135-1143*
- Value-Assigned Pulse Shape Discrimination for Neutron Detectors. *Teh, F.C.E.*, +, *TNS Aug. 2021 2294-2300*
- X-Ray Spectroscopy With a CdTe Pixel Detector and SIRIO Preamplifier at Deep Submicrosecond Signal-Processing Time. *Sammarini, M.*, +, *TNS Jan. 2021 70-75*

Gamma-ray detectors

- Correlations Between Panoramic Imagery and Gamma-Ray Background in an Urban Area. *Bandstra, M.S.*, +, *TNS Dec. 2021 2818-2834*
- Polarimetry With a Multilayer CdTe Prototype for Soft Gamma-Ray Astrophysics. *Moita, M.*, +, *TNS Nov. 2021 2655-2660*

Gamma-ray effects

- Gamma-Irradiation-Accelerated Degradation in AlGaIn-Based UVC LEDs Under Electrical Stress. *Wang, Y.*, +, *TNS Feb. 2021 149-155*
- Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in $\text{LYSO}+\text{SiPM}$ Packages. *Hu, C.*, +, *TNS June 2021 1244-1250*
- Gamma-Ray-Induced Error Pattern Analysis for MLC 3-D NAND Flash Memories. *Surendranathan, U.*, +, *TNS May 2021 733-739*
- Growth of $\text{Cd}_{0.9}\text{Zn}_{0.1}\text{Te}_{1-y}\text{Se}_y$ Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*
- Improvement on the Temporal Response of CZT γ -Ray Detector by Infrared Illumination. *Chen, X.*, +, *TNS Oct. 2021 2533-2538*
- Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. *Espósito, M.G.*, +, *TNS May 2021 724-732*
- Modeling the Ionization Damage on Excess Base Current in p-n-p BJTs for Circuit-Level Simulation. *Li, L.*, +, *TNS Aug. 2021 2220-2231*
- Radiation-Induced Error Mitigation by Read-Retry Technique for MLC 3-D NAND Flash Memory. *Kumari, P.*, +, *TNS May 2021 1032-1039*
- Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*
- Total Ionizing Dose Effects on Physical Unclonable Function From NAND Flash Memory. *Sakib, S.*, +, *TNS July 2021 1445-1453*

Gamma-ray sources (astronomical)

- The Stereoscopic Analog Trigger of the MAGIC Telescopes. *Dazzi, F.*, +, *TNS July 2021 1473-1486*

Gamma-ray spectra

- Application of a Simple, Spiking, Locally Competitive Algorithm to Radionuclide Identification. *Carson, M.*, +, *TNS March 2021 292-304*
- Measuring and Mapping Potassium in Agricultural Fields Using Gamma Spectroscopy. *Kavetskiy, A.*, +, *TNS Oct. 2021 2550-2558*
- Performances of C-BORD's Tagged Neutron Inspection System for Explosives and Illicit Drugs Detection in Cargo Containers. *Sardet, A.*, +, *TNS March 2021 346-353*
- Preprocessing Energy Intervals on Spectrum for Real-Time Radionuclide Identification. *Kwon, I.*, +, *TNS Aug. 2021 2202-2209*
- Value-Assigned Pulse Shape Discrimination for Neutron Detectors. *Teh, F.C.E.*, +, *TNS Aug. 2021 2294-2300*

Gamma-ray spectrometers

- A Development of a 40-Gb/s Readout Interface STARE for the AGATA Project. *Karkour, N.*, +, *TNS Aug. 2021 2005-2011*

Data Acquisition System for Underwater *In Situ* Gamma Radiation Spectrometer. *Yuan, J.*, +, *TNS Aug. 2021 1849-1854*

Improvement on the Temporal Response of CZT γ -Ray Detector by Infrared Illumination. *Chen, X.*, +, *TNS Oct. 2021 2533-2538*

Polaris-LAMP: Multi-Modal 3-D Image Reconstruction With a Commercial Gamma-Ray Imager. *Hecla, J.*, +, *TNS Oct. 2021 2539-2549*

Gamma-ray spectroscopy

A Study on Energy Resolution of CANDLES Detector. *Khai, B.T.*, +, *TNS March 2021 368-378*

Measuring and Mapping Potassium in Agricultural Fields Using Gamma Spectroscopy. *Kavetskiy, A.*, +, *TNS Oct. 2021 2550-2558*

Preprocessing Energy Intervals on Spectrum for Real-Time Radionuclide Identification. *Kwon, I.*, +, *TNS Aug. 2021 2202-2209*

SIRIO: A High-Speed CMOS Charge-Sensitive Amplifier for High-Energy-Resolution X- γ Ray Spectroscopy With Semiconductor Detectors. *Mele, F.*, +, *TNS March 2021 379-383*

Gamma-rays

High Spatial Resolution Tomographic Gamma Scanning Reconstruction With Improved MLEM Iterative Algorithm Based on Split Bregman Total Variation Regularization. *Mu, X.*, +, *TNS Dec. 2021 2762-2770*

Improved Gamma-Ray Point Source Quantification in Three Dimensions by Modeling Attenuation in the Scene. *Bandstra, M.S.*, +, *TNS Nov. 2021 2637-2646*

Garnets

Dual-Energy Micro-CT Using GAGG:Ce and LYSO:Ce Scintillators. *Xia, X.*, +, *TNS Feb. 2021 236-244*

Gas mixtures

Measurement of the Ion Blocking by the Passive Bipolar Grid. *Shulga, E.*, +, *TNS Jan. 2021 59-69*

Ge-Si alloys

Variability in Total-Ionizing-Dose Response of Fourth-Generation SiGe HBTs. *Teng, J.W.*, +, *TNS May 2021 949-957*

Geomagnetism

Surface Ionizing Dose for Space Applications Estimated With Low Energy Spectra Going Down to Hundreds of Electronvolt. *Inguibert, C.*, +, *TNS Aug. 2021 1754-1763*

Geometry

Improved Localization Precision and Angular Resolution of a Cylindrical, Time-Encoded Imaging System From Adaptive Detector Movements. *Shah, N.P.*, +, *TNS April 2021 410-425*

Geophysical image processing

NOAA Image Data Acquisition to Determine Soil Moisture in Arequipa, Perú. *Argume, A.*, +, *TNS Aug. 2021 1933-1936*

Germanium

Investigation by Thermoluminescence of the Ionization and Annealing Processes in Irradiated Ge-Doped Silica Fiber Preform. *Gutilla, A.*, +, *TNS Aug. 2021 1556-1564*

Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays. *Blanchet, T.*, +, *TNS Aug. 2021 1681-1687*

Single-Event Transient Response of Vertical and Lateral Waveguide-Integrated Germanium Photodiodes. *Ryder, L.D.*, +, *TNS May 2021 801-806*

Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs. *Rony, M.W.*, +, *TNS May 2021 807-814*

Germanium compounds

Photobleaching Effect on Infrared Radiation-Induced Attenuation of Germanosilicate Optical Fibers at MGy Dose Levels. *Campanella, C.*, +, *TNS Aug. 2021 1688-1693*

Germanium radiation detectors

A Development of a 40-Gb/s Readout Interface STARE for the AGATA Project. *Karkour, N.*, +, *TNS Aug. 2021 2005-2011*

Segmented HPGe Detector for Nuclear Reactions Research. *Sokolov, A.*, +, *TNS Jan. 2021 54-58*

Glass

Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*

Glass fiber reinforced plastics

Thermal Neutron Absorption in Printed Circuit Boards. *Platt, S.P.*, +, *TNS April 2021 463-469*

Glass fibers

Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*

Glass structure

Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*

Global Positioning System

Measuring and Mapping Potassium in Agricultural Fields Using Gamma Spectroscopy. *Kavetskiy, A.*, +, *TNS Oct. 2021 2550-2558*

Role of Electron-Induced Coulomb Interactions to the Total SEU Rate During Earth and JUICE Missions. *Caron, P.*, +, *TNS Aug. 2021 1607-1612*

Graphical user interfaces

Data Acquisition System for Underwater *In Situ* Gamma Radiation Spectrometer. *Yuan, J.*, +, *TNS Aug. 2021 1849-1854*

ProtoDUNE-DP Light Acquisition and Calibration Software. *Belver, D.*, +, *TNS Sept. 2021 2334-2341*

The GosipGUI Framework for Control and Benchmarking of Readout Electronics Front-Ends. *Adamczewski-Musch, J.*, +, *TNS Aug. 2021 2074-2080*

Graphics processing units

Analyzing DUE Errors on GPUs With Neutron Irradiation Test and Fault Injection to Control Flow. *Ito, K.*, +, *TNS Aug. 2021 1668-1674*

Application of Heterogeneous Computing Techniques for the Development of an Image-Based Hot Spot Detection System Using MTCA. *Esquembri, S.*, +, *TNS Aug. 2021 2151-2158*

Particle Tracking With Space Charge Effects Using Graphics Processing Unit. *Kurimoto, Y.*, *TNS Aug. 2021 1912-1919*

H

Hafnium compounds

Defect-Induced Phase Transition in Hafnium Oxide Thin Films: Comparing Heavy Ion Irradiation and Oxygen-Engineering Effects. *Vogel, T.*, +, *TNS Aug. 2021 1542-1547*

Impacts of Through-Silicon Vias on Total-Ionizing-Dose Effects and Low-Frequency Noise in FinFETs. *Li, K.*, +, *TNS May 2021 740-747*

Total Ionizing Dose Effects on Multistate HfO_x-Based RRAM Synaptic Array. *Han, X.*, +, *TNS May 2021 756-761*

Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M.*, +, *TNS May 2021 687-696*

Hardware accelerators

How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F.*, +, *TNS May 2021 865-872*

Heat treatment

Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays. *Blanchet, T.*, +, *TNS Aug. 2021 1681-1687*

Heavy ion-nucleus reactions

Design and Beam Test Results for the 2-D Projective sPHENIX Electromagnetic Calorimeter Prototype. *Aidala, C.A.*, +, *TNS Feb. 2021 173-181*

The Pion Single-Event Latch-Up Cross Section Enhancement: Mechanisms and Consequences for Accelerator Hardness Assurance. *Coronetti, A.*, +, *TNS Aug. 2021 1613-1622*

Heavy tau leptons

Tau Identification With Deep Neural Networks at the CMS Experiment. *Choudhury, S.*, *TNS Aug. 2021 2194-2200*

HEMTs

Combined Effects of Proton Irradiation and Forward Gate-Bias Stress on the Interface Traps in AlGaIn/GaN Heterostructure. *Zhu, T.*, +, *TNS Nov. 2021 2616-2623*

Heterojunction bipolar transistors

Variability in Total-Ionizing-Dose Response of Fourth-Generation SiGe HBTs. *Teng, J.W.*, +, *TNS May 2021 949-957*

High electron mobility transistors

Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K.*, +, *TNS June 2021 1319-1324*

Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGaIn/GaN HEMTs. *Wan, P.*, +, *TNS June 2021 1258-1264*

Effects of Ionization and Displacement Damage in AlGaIn/GaN HEMT Devices Caused by Various Heavy Ions. *Wan, P.*, +, *TNS June 2021 1265-1271*

Hydrogen-Related Recovery Effect of AlGaIn/GaN High-Electron-Mobility Transistors Irradiated by High-Fluence Protons. *Chen, Z.*, +, *TNS Feb. 2021 118-123*

Single Event Burnout Hardening of Enhancement Mode HEMTs With Double Field Plates. *Zhen, Z.*, +, *TNS Sept. 2021 2358-2366*

High energy physics instrumentation computing

A Generic Streaming Software Platform Design for High-Energy Physics Data Acquisition Systems. *Wang, T.*, +, *TNS Feb. 2021 101-109*

A Revised Version of the ATLAS Tile Calorimeter Link Daughtersboard for the HL-LHC. *Santurio, E.V.*, +, *TNS Sept. 2021 2414-2420*

A Timing, Trigger, and Control System With Picosecond Precision Based on 10 Gbit/s Passive Optical Networks for High-Energy Physics. *Mendes, E.*, +, *TNS April 2021 447-457*

An FPGA-Based Trigger System With Online Track Recognition in COMET Phase-I. *Nakazawa, Y.*, +, *TNS Aug. 2021 2028-2034*

Archiver System Management for Belle II Detector Operation. *Kim, Y.*, +, *TNS Aug. 2021 2146-2150*

ATLAS Hardware-Based Endcap Muon Trigger for Future Upgrades. *Mino, Y.*, *TNS Aug. 2021 2012-2019*

CentOS Linux for the ATLAS MUCTPI Upgrade. *Spiwoks, R.*, +, *TNS Aug. 2021 2127-2131*

Cooling and Timing Tests of the ATLAS Fast Tracker VME Boards. *Sottocornola, S.*, +, *TNS Aug. 2021 2051-2058*

Data Acquisition System for the COMPASS+/ AMBER Experiment. *Frolov, V.*, +, *TNS Aug. 2021 1891-1898*

Data Acquisition System for Underwater *In Situ* Gamma Radiation Spectrometer. *Yuan, J.*, +, *TNS Aug. 2021 1849-1854*

Data-Taking Network for COMET Phase-I. *Igarashi, Y.*, +, *TNS Aug. 2021 1884-1890*

Design of the Compact Processing Module for the ATLAS Tile Calorimeter. *Carrion, F.*, *TNS Aug. 2021 1944-1951*

Experience and Performance of Persistent Memory for the DUNE Data Acquisition System. *Abud, A.A.*, +, *TNS Aug. 2021 2159-2164*

Gigabit Ethernet Daisy Chain on FPGA for COMET Readout Electronics. *Hamada, E.*, +, *TNS Aug. 2021 1968-1975*

Iterative Retina for High Track Multiplicity in a Barrel-Shaped Tracker and High Magnetic Field. *Deng, W.*, +, *TNS Aug. 2021 1937-1943*

Multiplexing Firmware Prototypes for the Global Trigger Subsystem of ATLAS Phase-II Upgrade. *Bonini, F.*, +, *TNS Sept. 2021 2421-2428*

New Software-Based Readout Driver for the ATLAS Experiment. *Kolos, S.*, +, *TNS Aug. 2021 1811-1817*

Operational Experience and Evolution of the ATLAS Tile Hadronic Calorimeter Read-Out Drivers. *Valero, A.*, *TNS Aug. 2021 1807-1810*

PCI-Express Based High-Speed Readout for the Belle II DAQ Upgrade. *Zhou, Q.D.*, +, *TNS Aug. 2021 1818-1825*

Performance of the Data-Handling Hub Readout System for the Belle II Pixel Detector. *Huber, S.*, +, *TNS Aug. 2021 1961-1967*

Performance of the High-Level Trigger System at CMS in LHC Run-2. *Choudhury, S.*, *TNS Aug. 2021 2035-2042*

Performance of the Unified Readout System of Belle II. *Nakao, M.*, +, *TNS Aug. 2021 1826-1832*

Prototype Data Acquisition and Slow Control Systems for the Mu2e Experiment. *Gioiosa, A.*, +, *TNS Aug. 2021 1862-1868*

Readout Firmware of the Vertex Locator for LHCb Run 3 and Beyond. *Hennesy, K.*, +, *TNS Oct. 2021 2472-2479*

Real-Time Implementation of the Neutron/Gamma Discrimination in an FPGA-Based DAQ MTCA Platform Using a Convolutional Neural Network. *Astrain, M.*, +, *TNS Aug. 2021 2173-2178*

Safe and Reusable Approach for Pin-to-Port Assignment in Multiboard FPGA Data Acquisition and Control Designs. *Kruszewski, M.*, +, *TNS June 2021 1186-1193*

Study of Using Machine Learning for Level 1 Trigger Decision in JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2187-2193*

Tau Identification With Deep Neural Networks at the CMS Experiment. *Choudhury, S.*, *TNS Aug. 2021 2194-2200*

The Fragmentation Of Target (FOOT) Experiment and Its DAQ System. *Biondi, S.*, *TNS Oct. 2021 2464-2471*

The Mu3e Data Acquisition. *Augustin, H.*, +, *TNS Aug. 2021 1833-1840*

The ReadoutCard Userspace Driver for the New Alice O² Computing System. *Alexopoulos, K.*, +, *TNS Aug. 2021 1876-1883*

White Rabbit Time Synchronization for Radiation Detector Readout Electronics. *Hennig, W.*, +, *TNS Aug. 2021 2059-2065*

High-energy elementary particle interactions

Performance of the High-Level Trigger System at CMS in LHC Run-2. *Choudhury, S.*, *TNS Aug. 2021 2035-2042*

High-speed integrated circuits

A 24-Channel Digitizer With a JESD204B-Compliant Serial Interface for High-Speed Detectors. *Grace, C.R.*, +, *TNS April 2021 426-433*

High-temperature electronics

Charge Trapping and Transconductance Degradation in Irradiated 3-D Sequentially Integrated FDSOI MOSFETs. *Toguchi, S.*, +, *TNS May 2021 707-715*

Hole traps

Impacts of Through-Silicon Vias on Total-Ionizing-Dose Effects and Low-Frequency Noise in FinFETs. *Li, K.*, +, *TNS May 2021 740-747*

Total Ionizing Dose Responses of 22-nm FDSOI and 14-nm Bulk FinFET Charge-Trap Transistors. *Brewer, R.M.*, +, *TNS May 2021 677-686*

Holmes-Siedle, Andrew

In Memoriam Andrew Holmes-Siedle (1929–2019). *TNS May 2021 503*

Hot carriers

TID Response and Radiation-Enhanced Hot-Carrier Degradation in 65-nm nMOSFETs: Concerns on the Layout-Dependent Effects. *Ren, Z.*, +, *TNS Aug. 2021 1565-1570*

Hot pressing

Comparison of Photoluminescence and Scintillation Properties Between Lu₂O₃:Eu Single Crystal and Transparent Ceramic. *Haihang, Y.*, +, *TNS April 2021 477-482*

Hydrogen

Aging Effects and Latent Interface-Trap Buildup in MOS Transistors. *Ding, J.*, +, *TNS Dec. 2021 2724-2735*

Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays. *Blanchet, T.*, +, *TNS Aug. 2021 1681-1687*

I

Image denoising

Raw Data Processing Using Modern Hardware for Inspection of Objects in X-Ray Baggage Inspection Systems. *Malarvizhi, S.*, +, *TNS June 2021 1296-1303*

Image processing

Electrical Analysis Method for Gamma-Ray Imaging System Based on Resistive Network Readout. *Jeon, S.*, +, *TNS Sept. 2021 2392-2399*

Image recognition

Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators. *Xiao, T.P.*, +, *TNS May 2021 762-769*

Image reconstruction

A 3-D Neutron Distribution Reconstruction Method Based on the Off-Situ Measurement for Reactor. *Cao, P.*, +, *TNS Dec. 2021 2694-2701*

A New CL Reconstruction Method Under the Displaced Sample Stage Scanning Mode. *Zhang, Y.*, +, *TNS Nov. 2021 2574-2586*

Filtered Backprojection in Compton Imaging Using a Spherical Harmonic Wiener Filter With Pixelated CdZnTe. *Shy, D.*, +, *TNS Feb. 2021 211-219*

FPGA-Based Real-Time Image Manipulation and Advanced Data Acquisition for 2-D-XRAY Detectors. *Mansour, W.*, +, *TNS Aug. 2021 1927-1932*

High Spatial Resolution Tomographic Gamma Scanning Reconstruction With Improved MLEM Iterative Algorithm Based on Split Bregman Total Variation Regularization. *Mu, X.*, +, *TNS Dec. 2021 2762-2770*

Improved Localization Precision and Angular Resolution of a Cylindrical, Time-Encoded Imaging System From Adaptive Detector Movements. *Shah, N.P.*, +, *TNS April 2021 410-425*

Pattern-Matching Unit for Medical Applications. *Leombruni, O.*, +, *TNS Aug. 2021 2140-2145*

- Self-Absorption Correction in X-Ray Fluorescence- Computed Tomography With Deep Convolutional Neural Network. *Gao, B., +, TNS June 2021 1194-1206*
- Image resolution**
- Diagonal 4-in ZnO Nanowire Cold Cathode Flat-Panel X-Ray Source: Preparation and Projection Imaging Properties. *Wang, L., +, TNS March 2021 338-345*
- Double-Photon Emission Imaging With High-Resolution Si/CdTe Compton Cameras. *Orita, T., +, TNS Aug. 2021 2279-2285*
- Dual-Energy Micro-CT Using GAGG:Ce and LYSO:Ce Scintillators. *Xia, X., +, TNS Feb. 2021 236-244*
- Improved Localization Precision and Angular Resolution of a Cylindrical, Time-Encoded Imaging System From Adaptive Detector Movements. *Shah, N.P., +, TNS April 2021 410-425*
- Image sensors**
- Dark Current Random Telegraph Signals in Short-Wavelength Infrared Image Sensors Based on InGaAs. *Virmontois, C., +, TNS May 2021 770-776*
- Impact ionization**
- Ion-Induced Mesoplasma Formation and Thermal Destruction in 4H-SiC Power MOSFET Devices. *McPherson, J.A., +, TNS May 2021 651-658*
- Impurities**
- Defect and Impurity-Complex Depassivation During Electron-Beam Irradiation of GaAs. *Fleetwood, D.M., +, TNS Aug. 2021 1548-1555*
- Indium**
- Influence of Hydrogen Treatment on Electrical Properties of Detector-Grade CdMnTe:In Crystals. *Yu, P., +, TNS April 2021 458-462*
- Indium compounds**
- Dark Current Random Telegraph Signals in Short-Wavelength Infrared Image Sensors Based on InGaAs. *Virmontois, C., +, TNS May 2021 770-776*
- Degradation Study of InGaAsN p-i-n Solar Cell Under 1-MeV Electron Irradiation. *Levillayer, M., +, TNS Aug. 2021 1694-1700*
- Electron Irradiation Effect on Van Der Waals Transistor for High-Detectivity Near-Infrared Photodetectors. *Pengfei, H., +, TNS March 2021 318-324*
- Inductors**
- Single-Event Effect Responses of Integrated Planar Inductors in 65-nm CMOS. *Biereguel, S., +, TNS Nov. 2021 2587-2597*
- Infrared detectors**
- Electron Irradiation Effect on Van Der Waals Transistor for High-Detectivity Near-Infrared Photodetectors. *Pengfei, H., +, TNS March 2021 318-324*
- Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X., +, TNS Jan. 2021 27-35*
- Infrared imaging**
- Dark Current Random Telegraph Signals in Short-Wavelength Infrared Image Sensors Based on InGaAs. *Virmontois, C., +, TNS May 2021 770-776*
- Input devices**
- Low-Noise Analog Channel for the Readout of the Si(Li) Detector of the GAPS Experiment. *Manghisoni, M., +, TNS Nov. 2021 2661-2669*
- Inspection**
- Performances of C-BORD's Tagged Neutron Inspection System for Explosives and Illicit Drugs Detection in Cargo Containers. *Sardet, A., +, TNS March 2021 346-353*
- Integrated circuit design**
- A Switched Capacitor Waveform Digitizing ASIC at Cryogenic Temperature for HPGe Detectors. *Liu, F., +, TNS Aug. 2021 2315-2322*
- Analysis of Bipolar Integrated Circuit Degradation Mechanisms Against Combined TID-DD Effects. *Ferraro, R., +, TNS Aug. 2021 1585-1593*
- Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies. *Privat, A., +, TNS May 2021 671-676*
- High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S., +, TNS Aug. 2021 2268-2278*
- Single-Event Transient Case Study for System-Level Radiation Effects Analysis. *Campola, M.J., +, TNS May 2021 1002-1007*
- Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS. *Wang, J., +, TNS May 2021 913-920*
- TID and Heavy-Ion Performance of an RHBD Multichannel Digitizer in 180-nm CMOS. *Quilligan, G., +, TNS July 2021 1414-1422*
- Integrated circuit layout**
- Design and Verification of a 6.25 GHz LC-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. *Monda, D., +, TNS Oct. 2021 2524-2532*
- Design-Stage Hardening of 65-nm CMOS Standard Cells Against Multiple Events. *Balbekov, A.O., +, TNS Aug. 2021 1712-1718*
- Fast-Transient Radiation-Hardened Low-Dropout Voltage Regulator for Space Applications. *Fan, H., +, TNS May 2021 1094-1102*
- Intrinsic Vulnerability to Soft Errors and a Mitigation Technique by Layout Optimization on DICE Flip Flops in a 65-nm Bulk Process. *Mori, F., +, TNS Aug. 2021 1727-1735*
- Single-Event Response of 22-nm Fully Depleted Silicon-on-Insulator Static Random Access Memory. *Casey, M.C., +, TNS April 2021 402-409*
- Integrated circuit manufacture**
- Design and Verification of a 6.25 GHz LC-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. *Monda, D., +, TNS Oct. 2021 2524-2532*
- Integrated circuit modeling**
- Dependence of Temperature and Back-Gate Bias on Single-Event Upset Induced by Heavy Ion in 0.2- μm DSOI CMOS Technology. *Wang, Y., +, TNS Aug. 2021 1660-1667*
- Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies. *Privat, A., +, TNS May 2021 671-676*
- TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T., +, TNS May 2021 603-610*
- Integrated circuit noise**
- TID and Heavy-Ion Performance of an RHBD Multichannel Digitizer in 180-nm CMOS. *Quilligan, G., +, TNS July 2021 1414-1422*
- Integrated circuit reliability**
- Analysis of Bipolar Integrated Circuit Degradation Mechanisms Against Combined TID-DD Effects. *Ferraro, R., +, TNS Aug. 2021 1585-1593*
- Evaluating and Mitigating Neutrons Effects on COTS EdgeAI Accelerators. *Blower, S., +, TNS Aug. 2021 1719-1726*
- Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies. *Privat, A., +, TNS May 2021 671-676*
- FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics. *Marini, F., +, TNS Aug. 2021 1952-1960*
- How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F., +, TNS May 2021 865-872*
- Identifying Radiation-Induced Micro-SEFIs in SRAM FPGAs. *Perez-Celis, A., +, TNS Oct. 2021 2480-2487*
- Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators. *Xiao, T.P., +, TNS May 2021 762-769*
- Neutron-Induced Pulsewidth Distribution of Logic Gates Characterized Using a Pulse Shrinking Chain-Based Test Structure. *Pande, N., +, TNS Dec. 2021 2736-2747*
- Scaling Trends of Digital Single-Event Effects: A Survey of SEU and SET Parameters and Comparison With Transistor Performance. *Kobayashi, D., TNS Feb. 2021 124-148*
- Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS. *Wang, J., +, TNS May 2021 913-920*
- TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T., +, TNS May 2021 603-610*
- Integrated circuit testing**
- A Comprehensive Comparison Between Design for Testability Techniques for Total Dose Testing of Flash-Based FPGAs. *Ibrahim, M.A., +, TNS Aug. 2021 2232-2238*
- Analysis of Bipolar Integrated Circuit Degradation Mechanisms Against Combined TID-DD Effects. *Ferraro, R., +, TNS Aug. 2021 1585-1593*
- Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D., +, TNS May 2021 716-723*
- FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics. *Marini, F., +, TNS Aug. 2021 1952-1960*
- Microprocessor Error Diagnosis by Trace Monitoring Under Laser Testing. *Pena-Fernandez, M., +, TNS Aug. 2021 1651-1659*
- Single-Event Response of 22-nm Fully Depleted Silicon-on-Insulator Static Random Access Memory. *Casey, M.C., +, TNS April 2021 402-409*

- Single-Event Transient Space Characterizations in 28-nm UTBB SOI Technologies and Below. *de Boissac, C.L.*, +, *TNS Jan. 2021 21-26*
- Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS. *Wang, J.*, +, *TNS May 2021 913-920*
- TID and Heavy-Ion Performance of an RHBD Multichannel Digitizer in 180-nm CMOS. *Quilligan, G.*, +, *TNS July 2021 1414-1422*
- Integrated circuits**
- Dosimetry of Thermal Neutron Beamlines at a Pulsed Spallation Source for Application to the Irradiation of Microelectronics. *Cazzaniga, C.*, +, *TNS May 2021 921-927*
- Simulation of Pulsed-Laser-Induced Testing in Microelectronic Devices. *Ryder, L.D.*, +, *TNS Oct. 2021 2496-2507*
- Integrated optics**
- Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. *Shawkat, M.S.A.*, +, *TNS March 2021 279-291*
- Optical Single-Event Transients Induced in Integrated Silicon-Photonic Waveguides by Two-Photon Absorption. *Tzintzarov, G.N.*, +, *TNS May 2021 785-792*
- Single-Event Transient Response of Vertical and Lateral Waveguide-Integrated Germanium Photodiodes. *Ryder, L.D.*, +, *TNS May 2021 801-806*
- Interface magnetism**
- Heavy-Ion Irradiation Effects on Advanced Perpendicular Anisotropy Spin-Transfer Torque Magnetic Tunnel Junction. *Coi, O.*, +, *TNS May 2021 588-596*
- Irradiation Effects on Perpendicular Anisotropy Spin-Orbit Torque Magnetic Tunnel Junctions. *Alamdar, M.*, +, *TNS May 2021 665-670*
- Interface states**
- Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGaN/GaN HEMTs. *Wan, P.*, +, *TNS June 2021 1258-1264*
- Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies. *Privat, A.*, +, *TNS May 2021 671-676*
- Inverse problems**
- Application of Markov Chain Monte Carlo Methods for Uncertainty Quantification in Inverse Transport Problems. *Bledsoe, K.C.*, +, *TNS Aug. 2021 2210-2219*
- Inverters**
- Monitoring of Particle Count Rate and LET Variations With Pulse Stretching Inverters. *Andjelkovic, M.*, +, *TNS Aug. 2021 1772-1781*
- Ion accelerators**
- Electromagnetic and Engineering Design of a High-Current 15-MeV/u Cyclotron. *Kutsaev, S.V.*, +, *TNS May 2021 1083-1093*
- Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G.*, +, *TNS Jan. 2021 9-20*
- Ion beam effects**
- A Heavy-Ion Beam Monitor Based on 3-D NAND Flash Memories. *Gerardin, S.*, +, *TNS May 2021 884-889*
- A Track-Structure-Based Approach to Upset-Rate Calculations Using the Katz Model. *Hansen, D.L.*, *TNS Aug. 2021 1633-1641*
- Analysis of Ion-Induced SEFI and SEL Phenomena in 90 nm NOR Flash Memory. *Ju, A.*, +, *TNS Oct. 2021 2508-2515*
- Defect-Induced Phase Transition in Hafnium Oxide Thin Films: Comparing Heavy Ion Irradiation and Oxygen-Engineering Effects. *Vogel, T.*, +, *TNS Aug. 2021 1542-1547*
- Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGaN/GaN HEMTs. *Wan, P.*, +, *TNS June 2021 1258-1264*
- Effects of Ionization and Displacement Damage in AlGaN/GaN HEMT Devices Caused by Various Heavy Ions. *Wan, P.*, +, *TNS June 2021 1265-1271*
- Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D.*, +, *TNS May 2021 716-723*
- Heavy-Ion Irradiation Effects on Advanced Perpendicular Anisotropy Spin-Transfer Torque Magnetic Tunnel Junction. *Coi, O.*, +, *TNS May 2021 588-596*
- Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Xiao, T.P.*, +, *TNS May 2021 581-587*
- Impact of TID on Within-Wafer Variability of Radiation-Hardened SOI Wafers. *Zheng, Q.*, +, *TNS July 2021 1423-1429*
- Influence of Supply Voltage and Body Biasing on Single-Event Upsets and Single-Event Transients in UTBB FD-SOI. *de Boissac, C.L.*, +, *TNS May 2021 850-856*
- Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. *Esposito, M.G.*, +, *TNS May 2021 724-732*
- Ion-Induced Mesoplasma Formation and Thermal Destruction in 4H-SiC Power MOSFET Devices. *McPherson, J.A.*, +, *TNS May 2021 651-658*
- Irradiation Effects on Perpendicular Anisotropy Spin-Orbit Torque Magnetic Tunnel Junctions. *Alamdar, M.*, +, *TNS May 2021 665-670*
- Mapping the Spatial Dependence of Charge-Collection Efficiency in Semiconductor Devices Using Pulsed-Laser Testing. *Hales, J.M.*, +, *TNS May 2021 617-625*
- Observation of Low-Energy Proton Direct Ionization in a 72-Layer 3-D NAND Flash Memory. *Wilcox, E.P.*, +, *TNS May 2021 835-841*
- SEU Mechanisms in Spintronic Devices: Critical Parameters and Basic Effects. *Coi, O.*, +, *TNS Aug. 2021 1533-1541*
- Single Event Burnout Hardening of Enhancement Mode HEMTs With Double Field Plates. *Zhen, Z.*, +, *TNS Sept. 2021 2358-2366*
- Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs. *Rony, M.W.*, +, *TNS May 2021 807-814*
- Systematic Analysis of Reliability of Large-Area 4H-SiC Charged Particle Detector Under Harsh He Ion Irradiation. *Gao, R.*, +, *TNS May 2021 1169-1174*
- The Influence of Ion Track Characteristics on Single-Event Upsets and Multiple-Cell Upsets in Nanometer SRAM. *Luo, Y.*, +, *TNS May 2021 1111-1119*
- Ion beams**
- High-Current Light-Ion Cyclotron for Applications in Nuclear Security and Radioisotope Production. *Johnstone, C.*, +, *TNS May 2021 1072-1082*
- Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G.*, +, *TNS Jan. 2021 9-20*
- Ion implantation**
- Impact of TID on Within-Wafer Variability of Radiation-Hardened SOI Wafers. *Zheng, Q.*, +, *TNS July 2021 1423-1429*
- Influence of Buried Oxide Si⁺ Implantation on TID and NBTI Effects for PDSOI MOSFETs. *Peng, C.*, +, *TNS Feb. 2021 156-164*
- Relating Gain Degradation to Defects Production in Neutron-Irradiated 4H-SiC Transistors. *Dong, P.*, +, *TNS March 2021 312-317*
- Ion optics**
- Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G.*, +, *TNS Jan. 2021 9-20*
- Ionization**
- Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X.*, +, *TNS Jan. 2021 27-35*
- Ionization chambers**
- Gigabit Ethernet Daisy Chain on FPGA for COMET Readout Electronics. *Hamada, E.*, +, *TNS Aug. 2021 1968-1975*
- Iron alloys**
- Heavy-Ion Irradiation Effects on Advanced Perpendicular Anisotropy Spin-Transfer Torque Magnetic Tunnel Junction. *Coi, O.*, +, *TNS May 2021 588-596*
- Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Xiao, T.P.*, +, *TNS May 2021 581-587*
- Irradiation Effects on Perpendicular Anisotropy Spin-Orbit Torque Magnetic Tunnel Junctions. *Alamdar, M.*, +, *TNS May 2021 665-670*
- Irrigation**
- NOAA Image Data Acquisition to Determine Soil Moisture in Arequipa, Perú. *Argume, A.*, +, *TNS Aug. 2021 1933-1936*
- Isolation technology**
- Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. *Esposito, M.G.*, +, *TNS May 2021 724-732*
- Iterative algorithms**
- High Spatial Resolution Tomographic Gamma Scanning Reconstruction With Improved MLEM Iterative Algorithm Based on Split Bregman Total Variation Regularization. *Mu, X.*, +, *TNS Dec. 2021 2762-2770*

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Filtered Backprojection in Compton Imaging Using a Spherical Harmonic Wiener Filter With Pixelated CdZnTe. *Shy, D.*, +, *TNS Feb. 2021 211-219*

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A Clock Distribution and Synchronization Scheme Over Optical Links for Large-Scale Physics Experiments. *Hu, Y.*, +, *TNS June 2021 1351-1358*

A Timing, Trigger, and Control System With Picosecond Precision Based on 10 Gbit/s Passive Optical Networks for High-Energy Physics. *Mendes, E.*, +, *TNS April 2021 447-457*

Development of a High-Resolution Digital Beam Position Processor for the Hefei Advanced Light Facility Preresearch Project. *Huang, L.*, +, *TNS Aug. 2021 2239-2248*

Optimization of Beam Arrival and Flight Time Measurement System Based on Cavity Monitors at the SXFEL. *Cao, S.*, +, *TNS Jan. 2021 2-8*

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Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D.*, +, *TNS May 2021 716-723*

K**Kalman filters**

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Kerr magneto-optical effect

Irradiation Effects on Perpendicular Anisotropy Spin-Orbit Torque Magnetic Tunnel Junctions. *Alamdar, M.*, +, *TNS May 2021 665-670*

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A Clock Distribution and Synchronization Scheme Over Optical Links for Large-Scale Physics Experiments. *Hu, Y.*, +, *TNS June 2021 1351-1358*

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Laser beam effects

Simulation of Pulsed-Laser-Induced Testing in Microelectronic Devices. *Ryder, L.D.*, +, *TNS Oct. 2021 2496-2507*

Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs. *Rony, M.W.*, +, *TNS May 2021 807-814*

Laser beams

A Charge Collection Equivalent Method for Laser Simulation of Dose Rate Effects With Improved Performance. *Tang, G.*, +, *TNS June 2021 1235-1243*

Development of a Tabletop Setup for the Transient Current Technique Using Two-Photon Absorption in Silicon Particle Detectors. *Wiehe, M.*, +, *TNS Feb. 2021 220-228*

Hi-Beam-S: A Monolithic Silicon Pixel Sensor-Based Prototype Particle Tracking System for HIAF. *Yang, H.*, +, *TNS Dec. 2021 2794-2800*

Optimization of Beam Arrival and Flight Time Measurement System Based on Cavity Monitors at the SXFEL. *Cao, S.*, +, *TNS Jan. 2021 2-8*

Laser cavity resonators

Optimization of Beam Arrival and Flight Time Measurement System Based on Cavity Monitors at the SXFEL. *Cao, S.*, +, *TNS Jan. 2021 2-8*

Lattice constants

Defect-Induced Phase Transition in Hafnium Oxide Thin Films: Comparing Heavy Ion Irradiation and Oxygen-Engineering Effects. *Vogel, T.*, +, *TNS Aug. 2021 1542-1547*

LC circuits

Design and Verification of a 6.25 GHz LC-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. *Monda, D.*, +, *TNS Oct. 2021 2524-2532*

Leakage currents

A Custom Low-Noise Silicon Photodiode Detector Designed for Use With X-Ray Capillary Optics. *Sleator, C.C.*, +, *TNS Aug. 2021 2249-2256*

A Switched Capacitor Waveform Digitizing ASIC at Cryogenic Temperature for HPGe Detectors. *Liu, F.*, +, *TNS Aug. 2021 2315-2322*

Analysis of Bipolar Integrated Circuit Degradation Mechanisms Against Combined TID-DD Effects. *Ferraro, R.*, +, *TNS Aug. 2021 1585-1593*

Enhanced Energy Resolution of GaN-on-Sapphire p-i-n Alpha-Particle Detector With Isoelectronic Al-Doped i-GaN Layer. *Geng, X.*, +, *TNS Aug. 2021 2301-2308*

Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies. *Privat, A.*, +, *TNS May 2021 671-676*

Gamma-Irradiation-Accelerated Degradation in AlGaIn-Based UVC LEDs Under Electrical Stress. *Wang, Y.*, +, *TNS Feb. 2021 149-155*

Hydrogen-Related Recovery Effect of AlGaIn/GaN High-Electron-Mobility Transistors Irradiated by High-Fluence Protons. *Chen, Z.*, +, *TNS Feb. 2021 118-123*

Impact of Terrestrial Neutrons on the Reliability of SiC VD-MOSFET Technologies. *Martinella, C.*, +, *TNS May 2021 634-641*

Segmented HPGe Detector for Nuclear Reactions Research. *Sokolov, A.*, +, *TNS Jan. 2021 54-58*

SiC p+n Junction Diodes Toward Beam Monitor Applications. *Kishishita, T.*, +, *TNS Dec. 2021 2787-2793*

TID Degradation Mechanisms in 16-nm Bulk FinFETs Irradiated to Ultra-high Doses. *Ma, T.*, +, *TNS Aug. 2021 1571-1578*

Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M.*, +, *TNS May 2021 687-696*

Ultra-High Total Ionizing Dose Effects on MOSFETs for Analog Applications. *Dewitte, H.*, +, *TNS May 2021 697-706*

Learning (artificial intelligence)

Accelerated Deep Reinforcement Learning for Fast Feedback of Beam Dynamics at KARA. *Wang, W.*, +, *TNS Aug. 2021 1794-1800*

Study of Using Machine Learning for Level 1 Trigger Decision in JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2187-2193*

Lepton decay

Tau Identification With Deep Neural Networks at the CMS Experiment. *Choudhury, S.*, *TNS Aug. 2021 2194-2200*

Life testing

Characterizing Energetic Dependence of Low-Energy Neutron-Induced SEU and MCU and Its Influence on Estimation of Terrestrial SER in 65-nm Bulk SRAM. *Liao, W.*, +, *TNS June 2021 1228-1234*

Light emitting diodes

Development of the Calibration System and Characterization of the Avalanche Photodiode for Scintillation Detection. *Jegal, J.*, +, *TNS June 2021 1304-1308*

Gamma-Irradiation-Accelerated Degradation in AlGaIn-Based UVC LEDs Under Electrical Stress. *Wang, Y.*, +, *TNS Feb. 2021 149-155*

Light sources

Development of a High-Resolution Digital Beam Position Processor for the Hefei Advanced Light Facility Preresearch Project. *Huang, L.*, +, *TNS Aug. 2021 2239-2248*

Experimental Research on HLS-II Performance by Means of the RF Phase Modulation Technique. *Zhao, Y.*, +, *TNS Feb. 2021 92-100*

Light transmission

Optical Single-Event Transients Induced in Integrated Silicon-Photonic Waveguides by Two-Photon Absorption. *Tzintzarov, G.N.*, +, *TNS May 2021 785-792*

Light water reactors

Load-Frequency Control With Multimodule Small Modular Reactor Configuration: Modeling and Dynamic Analysis. *Sabir, A.*, +, *TNS July 2021 1367-1380*

Lighting

Acquiring and Modeling of Si Solar-Cell Transient Response to Pulsed X-Ray. *Pan, L.*, +, *TNS May 2021 1152-1160*

Linear accelerators

Analytical RF Pulse Heating Analysis for High Gradient Accelerating Structures. *Gonzalez-Iglesias, D.*, +, *TNS Feb. 2021 78-91*

- High-Level Software Interface to the LLRF System Developed for the European Spallation Source Facility. *Klys, K., +, TNS Aug. 2021 2132-2139*
- Investigations Into X-Band Dielectric Assist Accelerating Structures for Future Linear Accelerators. *Wei, Y., +, TNS May 2021 1062-1071*
- MicroTCA.4-Based Low-Level RF for Continuous Wave Mode Operation at the ELBE Accelerator. *Zenker, K., +, TNS Sept. 2021 2326-2333*
- Online Detuning Computation and Quench Detection for Superconducting Resonators. *Bellandi, A., +, TNS April 2021 385-393*
- Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G., +, TNS Jan. 2021 9-20*
- TID Effects Induced by ARACOR, ^{60}Co , and ORIATRON Photon Sources in MOS Devices: Impact of Geometry and Materials. *Lambert, D., +, TNS May 2021 991-1001*
- Linear colliders**
- Investigations Into X-Band Dielectric Assist Accelerating Structures for Future Linear Accelerators. *Wei, Y., +, TNS May 2021 1062-1071*
- Linear quadratic Gaussian control**
- L_1 -Adaptive Robust Control Design for a Pressurized Water-Type Nuclear Power Plant. *Vajpayee, V., +, TNS July 2021 1381-1398*
- Linux**
- CentOS Linux for the ATLAS MUCTPI Upgrade. *Spiwoks, R., +, TNS Aug. 2021 2127-2131*
- Mössbauer Spectrometer With Advanced Modulation of Gamma Ray Energy Utilizing Real-Time Industrial Computer. *Kohout, P., +, TNS Aug. 2021 1869-1875*
- The ReadoutCard Userspace Driver for the New Alice O^2 Computing System. *Alexopoulos, K., +, TNS Aug. 2021 1876-1883*
- Liquid scintillation detectors**
- A New DCC Software for $4\pi\beta(\text{LS}) - \gamma$ Coincidence Counting. *Zhong, K., +, TNS Aug. 2021 1920-1926*
- Value-Assigned Pulse Shape Discrimination for Neutron Detectors. *Teh, F.C.E., +, TNS Aug. 2021 2294-2300*
- Load regulation**
- Load-Frequency Control With Multimodule Small Modular Reactor Configuration: Modeling and Dynamic Analysis. *Sabir, A., +, TNS July 2021 1367-1380*
- Local area networks**
- Automatic Test System of the Back-End Card for the JUNO Experiment. *Clerbaux, B., +, TNS Aug. 2021 2121-2126*
- Data-Taking Network for COMET Phase-I. *Igarashi, Y., +, TNS Aug. 2021 1884-1890*
- Gigabit Ethernet Daisy Chain on FPGA for COMET Readout Electronics. *Hamada, E., +, TNS Aug. 2021 1968-1975*
- White Rabbit Time Synchronization for Radiation Detector Readout Electronics. *Hennig, W., +, TNS Aug. 2021 2059-2065*
- Location awareness**
- Immersive Operation of a Semi-Autonomous Aerial Platform for Detecting and Mapping Radiation. *Dayani, P., +, TNS Dec. 2021 2702-2710*
- Logic circuits**
- Simultaneous Single-Event Transient (SET) Observation on LM139A Wired-and Comparator Circuit. *Morand, S., +, TNS June 2021 1279-1285*
- Logic design**
- A Comprehensive Comparison Between Design for Testability Techniques for Total Dose Testing of Flash-Based FPGAs. *Ibrahim, M.A., +, TNS Aug. 2021 2232-2238*
- A Heavy-Ion Beam Monitor Based on 3-D NAND Flash Memories. *Gerardin, S., +, TNS May 2021 884-889*
- Effect of Cell Placement on Single-Event Transient Pulse in a Bulk FinFET Technology. *Huang, P., +, TNS May 2021 1103-1110*
- Emulating Radiation-Induced Multicell Upset Patterns in SRAM FPGAs With Fault Injection. *Perez-Celis, A., +, TNS Aug. 2021 1594-1599*
- FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics. *Marini, F., +, TNS Aug. 2021 1952-1960*
- How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F., +, TNS May 2021 865-872*
- Investigation of Buried-Well Potential Perturbation Effects on SEU in SOI DICE-Based Flip-Flop Under Proton Irradiation. *Sakamoto, K., +, TNS June 2021 1222-1227*
- Multiscale System Modeling of Single-Event-Induced Faults in Advanced Node Processors. *Cannon, M., +, TNS May 2021 980-990*
- Partial TMR for Improving the Soft Error Reliability of SRAM-Based FPGA Designs. *Keller, A.M., +, TNS May 2021 1023-1031*
- Simultaneous Single-Event Transient (SET) Observation on LM139A Wired-and Comparator Circuit. *Morand, S., +, TNS June 2021 1279-1285*
- Single-Event Upsets in a 7-nm Bulk FinFET Technology With Analysis of Threshold Voltage Dependence. *D'Amico, J.V., +, TNS May 2021 823-829*
- Logic gates**
- Depth Dependence of Threshold Voltage Shift in 3-D Flash Memories Exposed to X-Rays. *Bagatin, M., +, TNS May 2021 659-664*
- Effect of Cell Placement on Single-Event Transient Pulse in a Bulk FinFET Technology. *Huang, P., +, TNS May 2021 1103-1110*
- Neutron-Induced Pulsewidth Distribution of Logic Gates Characterized Using a Pulse Shrinking Chain-Based Test Structure. *Pande, N., +, TNS Dec. 2021 2736-2747*
- Scaling Trends of Digital Single-Event Effects: A Survey of SEU and SET Parameters and Comparison With Transistor Performance. *Kobayashi, D., TNS Feb. 2021 124-148*
- Logic testing**
- A Comprehensive Comparison Between Design for Testability Techniques for Total Dose Testing of Flash-Based FPGAs. *Ibrahim, M.A., +, TNS Aug. 2021 2232-2238*
- A Heavy-Ion Beam Monitor Based on 3-D NAND Flash Memories. *Gerardin, S., +, TNS May 2021 884-889*
- Developing Benchmarks for Radiation Testing of Microcontroller Arithmetic Units Using ATPG. *Gnawali, K.P., +, TNS May 2021 857-864*
- FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics. *Marini, F., +, TNS Aug. 2021 1952-1960*
- Simultaneous Single-Event Transient (SET) Observation on LM139A Wired-and Comparator Circuit. *Morand, S., +, TNS June 2021 1279-1285*
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- Low-frequency noise**
- Aging Effects and Latent Interface-Trap Buildup in MOS Transistors. *Ding, J., +, TNS Dec. 2021 2724-2735*
- Low-power electronics**
- A 24-Channel Digitizer With a JESD204B-Compliant Serial Interface for High-Speed Detectors. *Grace, C.R., +, TNS April 2021 426-433*
- A Highly Linear FPGA-Based TDC and a Low-Power Multichannel Readout ASIC With a Shared SAR ADC for SiPM Detectors. *Tang, Y., +, TNS Aug. 2021 2286-2293*
- A Low-Power Time-to-Digital Converter for the CMS Endcap Timing Layer (ETL) Upgrade. *Zhang, W., +, TNS Aug. 2021 1984-1992*
- ALTAIR: A Low-Noise, Low-Power, High-Speed and Wide Dynamic Range ASIC for X- and γ -Ray Spectroscopy With CdTe/CdZnTe Pixel Detectors. *Macera, D., +, TNS Feb. 2021 182-188*
- High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S., +, TNS Aug. 2021 2268-2278*
- How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F., +, TNS May 2021 865-872*
- Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators. *Xiao, T.P., +, TNS May 2021 762-769*
- Total Ionizing Dose Effects on Multistate HfO_x-Based RRAM Synaptic Array. *Han, X., +, TNS May 2021 756-761*
- Ultralow Power System-on-Chip SRAM Characterization by Alpha and Neutron Irradiation. *Haran, A., +, TNS Nov. 2021 2598-2608*
- Low-temperature techniques**
- Charge Trapping and Transconductance Degradation in Irradiated 3-D Sequentially Integrated FDSOI MOSFETs. *Toguchi, S., +, TNS May 2021 707-715*

Lutetium compounds

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Heavy-Ion Irradiation Effects on Advanced Perpendicular Anisotropy Spin-Transfer Torque Magnetic Tunnel Junction. *Coi, O.*, +, *TNS May 2021 588-596*

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Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Xiao, T.P.*, +, *TNS May 2021 581-587*

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Magnetic thin films

Irradiation Effects on Perpendicular Anisotropy Spin-Orbit Torque Magnetic Tunnel Junctions. *Alamdar, M.*, +, *TNS May 2021 665-670*

Magnetic tunneling

Heavy-Ion Irradiation Effects on Advanced Perpendicular Anisotropy Spin-Transfer Torque Magnetic Tunnel Junction. *Coi, O.*, +, *TNS May 2021 588-596*

Influence of Total Ionizing Dose on Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Zink, B.*, +, *TNS May 2021 748-755*

Irradiation Effects on Perpendicular Anisotropy Spin-Orbit Torque Magnetic Tunnel Junctions. *Alamdar, M.*, +, *TNS May 2021 665-670*

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Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Xiao, T.P.*, +, *TNS May 2021 581-587*

Radiation Effects in Advanced and Emerging Nonvolatile Memories. *Mari-nella, M.J.*, *TNS May 2021 546-572*

SEU Mechanisms in Spintronic Devices: Critical Parameters and Basic Effects. *Coi, O.*, +, *TNS Aug. 2021 1533-1541*

Manganese compounds

Influence of Hydrogen Treatment on Electrical Properties of Detector-Grade $\text{CdMnTe}:\text{In}$ Crystals. *Yu, P.*, +, *TNS April 2021 458-462*

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Application of Markov Chain Monte Carlo Methods for Uncertainty Quantification in Inverse Transport Problems. *Bledsoe, K.C.*, +, *TNS Aug. 2021 2210-2219*

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Matrix algebra

A Generic Streaming Software Platform Design for High-Energy Physics Data Acquisition Systems. *Wang, T.*, +, *TNS Feb. 2021 101-109*

Maximum likelihood estimation

Improved Gamma-Ray Point Source Quantification in Three Dimensions by Modeling Attenuation in the Scene. *Bandsira, M.S.*, +, *TNS Nov. 2021 2637-2646*

Improved Localization Precision and Angular Resolution of a Cylindrical, Time-Encoded Imaging System From Adaptive Detector Movements. *Shah, N.P.*, +, *TNS April 2021 410-425*

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Measurement by laser beam

Hi'Beam-S: A Monolithic Silicon Pixel Sensor-Based Prototype Particle Tracking System for HIAF. *Yang, H.*, +, *TNS Dec. 2021 2794-2800*

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Medical image processing

Development of Multichannel High Time Resolution Data Acquisition System for TOT-ASIC. *Sato, S.*, +, *TNS Aug. 2021 1801-1806*

Double-Photon Emission Imaging With High-Resolution Si/CdTe Compton Cameras. *Orita, T.*, +, *TNS Aug. 2021 2279-2285*

Dual-Energy Micro-CT Using GAGG:Ce and LYSO:Ce Scintillators. *Xia, X.*, +, *TNS Feb. 2021 236-244*

Pattern-Matching Unit for Medical Applications. *Leombruni, O.*, +, *TNS Aug. 2021 2140-2145*

Self-Absorption Correction in X-Ray Fluorescence-Computed Tomography With Deep Convolutional Neural Network. *Gao, B.*, +, *TNS June 2021 1194-1206*

Meetings

Comments by the Editors. *Fleetwood, D.*, +, *TNS Aug. 2021 1531*

Editorial. *Ritt, S.*, *TNS Aug. 2021 1793*

Special NSREC 2020 Issue of the IEEE Transactions on Nuclear Science Editor Comments. *Fleetwood, D.*, +, *TNS May 2021 492*

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Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X.*, +, *TNS Jan. 2021 27-35*

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3-D Optical Imaging System of Muon Beams Using a Silver Activated Zinc Sulfide ($\text{ZnS}(\text{Ag})$) Sheet Combined With a Mirror. *Yamamoto, S.*, +, *TNS Dec. 2021 2748-2752*

Metal-insulator structures

Single-Event Effect Responses of Integrated Planar Inductors in 65-nm CMOS. *Biereigel, S.*, +, *TNS Nov. 2021 2587-2597*

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Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. *Shawkat, M.S.A.*, +, *TNS March 2021 279-291*

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Design of Time-to-Digital Converters for Time-Over-Threshold Measurement in Picosecond Timing Detectors. *Wu, B.*, +, *TNS April 2021 470-476*

Hi'Beam-A: A Pixelated Beam Monitor for the Accelerator of a Heavy-Ion Therapy Facility. *Zhang, H.*, +, *TNS Aug. 2021 2081-2087*

Microcontrollers

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High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S.*, +, *TNS Aug. 2021 2268-2278*

Investigating How Software Characteristics Impact the Effectiveness of Automated Software Fault Tolerance. *James, B.*, +, *TNS May 2021 1014-1022*

OpenPMC: A Free and Open-Source Intelligent Platform Management Controller Software. *Calligaris, L.*, +, *TNS Aug. 2021 2105-2112*

Microprocessor chips

Microprocessor Error Diagnosis by Trace Monitoring Under Laser Testing. *Pena-Fernandez, M.*, +, *TNS Aug. 2021 1651-1659*

Multiscale System Modeling of Single-Event-Induced Faults in Advanced Node Processors. *Cannon, M.*, +, *TNS May 2021 980-990*

Updates on Testing Microprocessors Effectively. *Quinn, H.*, +, *TNS May 2021 842-849*

Minority carriers

Degradation Study of InGaAsN p-i-n Solar Cell Under 1-MeV Electron Irradiation. *Levillayer, M.*, +, *TNS Aug. 2021 1694-1700*

MIS devices

TID Effects Induced by ARACOR, ^{60}Co , and ORIATRON Photon Sources in MOS Devices: Impact of Geometry and Materials. *Lambert, D.*, +, *TNS May 2021 991-1001*

MMIC oscillators

Design and Verification of a 6.25 GHz LC-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. *Monda, D.*, +, *TNS Oct. 2021 2524-2532*

Models beyond standard model

Archiver System Management for Belle II Detector Operation. *Kim, Y.*, +, *TNS Aug. 2021 2146-2150*

Prototype Data Acquisition and Slow Control Systems for the Mu2e Experiment. *Gioiosa, A.*, +, *TNS Aug. 2021 1862-1868*

Molecular beam epitaxial growth

Defect and Impurity-Complex Depassivation During Electron-Beam Irradiation of GaAs. *Fleetwood, D.M.*, +, *TNS Aug. 2021 1548-1555*

Monitoring

A 3-D Neutron Distribution Reconstruction Method Based on the Off-Situ Measurement for Reactor. *Cao, P.*, +, *TNS Dec. 2021 2694-2701*

Numerical Simulation Study on Gain Nonlinearity of Microchannel Plate in Photomultiplier Tube. *Guo, L.*, +, *TNS Dec. 2021 2711-2716*

Monte Carlo methods

0.1–10 MeV Neutron Soft Error Rate in Accelerator and Atmospheric Environments. *Cecchetto, M.*, +, *TNS May 2021 873-883*

A Kinetic Monte Carlo Algorithm to Model the Annealing Process and Compute the Dark Current Nonuniformity. *Lemiere, K.*, +, *TNS Aug. 2021 1701-1711*

Application of Markov Chain Monte Carlo Methods for Uncertainty Quantification in Inverse Transport Problems. *Bledsoe, K.C.*, +, *TNS Aug. 2021 2210-2219*

Geant4 Nucleon Momentum Generator. *Grichine, V.M.*, *TNS July 2021 1362-1366*

Investigations on Spectral Photon Radiation Sources to Perform TID Experiments in Micro- and Nano-Electronic Devices. *Gaillardin, M.*, +, *TNS May 2021 928-936*

Low and Medium Earth-Orbit Error Rates Using Design-of-Experiments and Monte-Carlo Methods. *Hansen, D.L.*, *TNS May 2021 642-650*

Mapping the Spatial Dependence of Charge-Collection Efficiency in Semiconductor Devices Using Pulsed-Laser Testing. *Hales, J.M.*, +, *TNS May 2021 617-625*

Measuring and Mapping Potassium in Agricultural Fields Using Gamma Spectroscopy. *Kavetskiy, A.*, +, *TNS Oct. 2021 2550-2558*

Modeling COTS System TID Response With Monte Carlo Sampling and Transistor Swapping Experiments. *Smith, M.B.*, +, *TNS May 2021 1008-1013*

Novel Model for Analysis and Optimization of Silicon Photomultiplier-Based Scintillation Systems. *Sommer, M.*, +, *TNS Dec. 2021 2771-2778*

Numerical Simulation Study on Gain Nonlinearity of Microchannel Plate in Photomultiplier Tube. *Guo, L.*, +, *TNS Dec. 2021 2711-2716*

Observation of Low-Energy Proton Direct Ionization in a 72-Layer 3-D NAND Flash Memory. *Wilcox, E.P.*, +, *TNS May 2021 835-841*

Simulations of Internal Charging Effects of Artificial Radiation Belt on Dielectric Material. *Zuo, Y.*, +, *TNS May 2021 1120-1128*

Single-Event Transient Space Characterizations in 28-nm UTBB SOI Technologies and Below. *de Boissac, C.L.*, +, *TNS Jan. 2021 21-26*

Surface Ionizing Dose for Space Applications Estimated With Low Energy Spectra Going Down to Hundreds of Electronvolt. *Inguibert, C.*, +, *TNS Aug. 2021 1754-1763*

TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T.*, +, *TNS May 2021 603-610*

TID Effects Induced by ARACOR, ⁶⁰Co, and ORIATRON Photon Sources in MOS Devices: Impact of Geometry and Materials. *Lambert, D.*, +, *TNS May 2021 991-1001*

Moon

Coupling Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Solar Array Drive Assembly. *Wang, X.*, +, *TNS July 2021 1399-1406*

MOS integrated circuits

Charge Trapping and Transconductance Degradation in Irradiated 3-D Sequentially Integrated FDSOI MOSFETs. *Toguchi, S.*, +, *TNS May 2021 707-715*

MOSFET

Aging Effects and Latent Interface-Trap Buildup in MOS Transistors. *Ding, J.*, +, *TNS Dec. 2021 2724-2735*

Charge Trapping and Transconductance Degradation in Irradiated 3-D Sequentially Integrated FDSOI MOSFETs. *Toguchi, S.*, +, *TNS May 2021 707-715*

Effects of Bias and Temperature on the Dose-Rate Sensitivity of 65-nm CMOS Transistors. *Borghello, G.*, +, *TNS May 2021 573-580*

Evaluating Architectural, Redundancy, and Implementation Strategies for Radiation Hardening of FinFET Integrated Circuits. *Pagliarini, S.*, +, *TNS May 2021 1045-1053*

Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies. *Privat, A.*, +, *TNS May 2021 671-676*

Impacts of Through-Silicon Vias on Total-Ionizing-Dose Effects and Low-Frequency Noise in FinFETs. *Li, K.*, +, *TNS May 2021 740-747*

Influence of Buried Oxide Si⁺ Implantation on TID and NBTI Effects for PDSOI MOSFETs. *Peng, C.*, +, *TNS Feb. 2021 156-164*

Intrinsic Vulnerability to Soft Errors and a Mitigation Technique by Layout Optimization on DICE Flip Flops in a 65-nm Bulk Process. *Mori, F.*, +, *TNS Aug. 2021 1727-1735*

Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. *Esposito, M.G.*, +, *TNS May 2021 724-732*

Investigation of Radiation Hardening by Back-Channel Adjustment in PDSOI MOSFETs. *Liu, C.*, +, *TNS Nov. 2021 2609-2615*

Measurement and Evaluation of the Within-Wafer TID Response Variability on BOX Layer of SOI Technology. *Zheng, Q.*, +, *TNS Oct. 2021 2516-2523*

Radiation Effects in a Post-Moore World. *Fleetwood, D.M.*, *TNS May 2021 509-545*

Single-Event Latchup in a 7-nm Bulk FinFET Technology. *Ball, D.R.*, +, *TNS May 2021 830-834*

Single-Event Upsets in a 7-nm Bulk FinFET Technology With Analysis of Threshold Voltage Dependence. *D'Amico, J.V.*, +, *TNS May 2021 823-829*

Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs. *Rony, M.W.*, +, *TNS May 2021 807-814*

Supply Voltage Dependence of Ring Oscillator Frequencies for Total Ionizing Dose Exposures for 7-nm Bulk FinFET Technology. *Xiong, Y.*, +, *TNS Aug. 2021 1579-1584*

TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T.*, +, *TNS May 2021 603-610*

TID Degradation Mechanisms in 16-nm Bulk FinFETs Irradiated to Ultra-high Doses. *Ma, T.*, +, *TNS Aug. 2021 1571-1578*

TID Response and Radiation-Enhanced Hot-Carrier Degradation in 65-nm nMOSFETs: Concerns on the Layout-Dependent Effects. *Ren, Z.*, +, *TNS Aug. 2021 1565-1570*

Total Ionizing Dose Responses of 22-nm FDSOI and 14-nm Bulk FinFET Charge-Trap Transistors. *Brewer, R.M.*, +, *TNS May 2021 677-686*

Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M.*, +, *TNS May 2021 687-696*

MOSFET circuits

Effect of Cell Placement on Single-Event Transient Pulse in a Bulk FinFET Technology. *Huang, P.*, +, *TNS May 2021 1103-1110*

MRAM devices

Heavy-Ion Irradiation Effects on Advanced Perpendicular Anisotropy Spin-Transfer Torque Magnetic Tunnel Junction. *Coi, O.*, +, *TNS May 2021 588-596*

Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Xiao, T.P.*, +, *TNS May 2021 581-587*

Influence of Total Ionizing Dose on Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Zink, B.*, +, *TNS May 2021 748-755*

Radiation Effects in Advanced and Emerging Nonvolatile Memories. *Marinella, M.J.*, *TNS May 2021 546-572*

SEU Mechanisms in Spintronic Devices: Critical Parameters and Basic Effects. *Coi, O.*, +, *TNS Aug. 2021 1533-1541*

Multilayer perceptrons

Study of Using Machine Learning for Level 1 Trigger Decision in JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2187-2193*

Multilayers

Multilayered Solid-State Neutron Sensor. *Rice, W.C.*, +, *TNS May 2021 890-896*

Multiprocessing systems

A Zynq-Based Flexible ADC Architecture Combining Real-Time Data Streaming and Transient Recording. *Garola, A.R.*, +, *TNS Feb. 2021 245-249*

Muon capture

Muon-Induced Single-Event Upsets in 20-nm SRAMs: Comparative Characterization With Neutrons and Alpha Particles. *Kato, T.*, +, *TNS July 2021 1436-1444*

Muon decay

The Mu3e Data Acquisition. *Augustin, H.*, +, *TNS Aug. 2021 1833-1840*

Muon detection

ATLAS Hardware-Based Endcap Muon Trigger for Future Upgrades. *Mino, Y.*, *TNS Aug. 2021 2012-2019*

CentOS Linux for the ATLAS MUCTPI Upgrade. *Spiwoks, R.*, +, *TNS Aug. 2021 2127-2131*

High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S.*, +, *TNS Aug. 2021 2268-2278*

Muon sources

Development of L-Bent Positron Detectors for μ SR Applications at China Spallation Neutron Source. *Pan, Z.*, +, *TNS Sept. 2021 2407-2413*

Muon-nucleon interactions

Prototype Data Acquisition and Slow Control Systems for the Mu2e Experiment. *Gioiosa, A.*, +, *TNS Aug. 2021 1862-1868*

Muons

Muon-Induced Single-Event Upsets in 20-nm SRAMs: Comparative Characterization With Neutrons and Alpha Particles. *Kato, T.*, +, *TNS July 2021 1436-1444*

Prototype Data Acquisition and Slow Control Systems for the Mu2e Experiment. *Gioiosa, A.*, +, *TNS Aug. 2021 1862-1868*

Radiation Tolerance of Online Trigger System for COMET Phase-I. *Dekkers, S.*, +, *TNS Aug. 2021 2020-2027*

The Mu3e Data Acquisition. *Augustin, H.*, +, *TNS Aug. 2021 1833-1840*

N**NAND circuits**

A Heavy-Ion Beam Monitor Based on 3-D NAND Flash Memories. *Gerardin, S.*, +, *TNS May 2021 884-889*

Depth Dependence of Threshold Voltage Shift in 3-D Flash Memories Exposed to X-Rays. *Bagatin, M.*, +, *TNS May 2021 659-664*

Gamma-Ray-Induced Error Pattern Analysis for MLC 3-D NAND Flash Memories. *Surendranathan, U.*, +, *TNS May 2021 733-739*

Observation of Low-Energy Proton Direct Ionization in a 72-Layer 3-D NAND Flash Memory. *Wilcox, E.P.*, +, *TNS May 2021 835-841*

Radiation-Induced Error Mitigation by Read-Retry Technique for MLC 3-D NAND Flash Memory. *Kumari, P.*, +, *TNS May 2021 1032-1039*

Total Ionizing Dose Effects on Physical Unclonable Function From NAND Flash Memory. *Sakib, S.*, +, *TNS July 2021 1445-1453*

Nanoelectronics

Impact of the Bitcell Topology on the Multiple-Cell Upsets Observed in VLSI Nanoscale SRAMs. *Clemente, J.A.*, +, *TNS Sept. 2021 2383-2391*

Scaling Trends of Digital Single-Event Effects: A Survey of SEU and SET Parameters and Comparison With Transistor Performance. *Kobayashi, D.*, *TNS Feb. 2021 124-148*

Nanoparticles

High-Energy and High-Rate X-Ray Measurements Using HfO₂ Nanoparticle-Loaded Plastic Scintillator. *Kishimoto, S.*, +, *TNS Feb. 2021 165-172*

Impact of TID on Within-Wafer Variability of Radiation-Hardened SOI Wafers. *Zheng, Q.*, +, *TNS July 2021 1423-1429*

Nanostructured materials

Impact of TID on Within-Wafer Variability of Radiation-Hardened SOI Wafers. *Zheng, Q.*, +, *TNS July 2021 1423-1429*

Nanowires

Diagonal 4-in ZnO Nanowire Cold Cathode Flat-Panel X-Ray Source: Preparation and Projection Imaging Properties. *Wang, L.*, +, *TNS March 2021 338-345*

Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M.*, +, *TNS May 2021 687-696*

Nearest neighbor methods

Analysis of Single-Event Transients (SETs) Using Machine Learning (ML) and Ionizing Radiation Effects Spectroscopy (IRES). *Loveless, T.D.*, +, *TNS Aug. 2021 1600-1606*

Negative bias temperature instability

Influence of Buried Oxide Si⁺ Implantation on TID and NBTI Effects for PDSOI MOSFETs. *Peng, C.*, +, *TNS Feb. 2021 156-164*

Network architecture

A 3-D Neutron Distribution Reconstruction Method Based on the Off-Situ Measurement for Reactor. *Cao, P.*, +, *TNS Dec. 2021 2694-2701*

Network topology

Impact of the Bitcell Topology on the Multiple-Cell Upsets Observed in VLSI Nanoscale SRAMs. *Clemente, J.A.*, +, *TNS Sept. 2021 2383-2391*

Neural networks

A Reconfigurable Neural Network ASIC for Detector Front-End Data Compression at the HL-LHC. *Guglielmo, G.D.*, +, *TNS Aug. 2021 2179-2186*

Considerations for Training an Artificial Neural Network for Particle Type Identification. *Fobar, D.*, +, *TNS Sept. 2021 2350-2357*

Diagnostic Data Integration Using Deep Neural Networks for Real-Time Plasma Analysis. *Rigoni Garola, A.*, +, *TNS Aug. 2021 2165-2172*

How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F.*, +, *TNS May 2021 865-872*

Self-Absorption Correction in X-Ray Fluorescence-Computed Tomography With Deep Convolutional Neural Network. *Gao, B.*, +, *TNS June 2021 1194-1206*

Tau Identification With Deep Neural Networks at the CMS Experiment. *Choudhury, S.*, *TNS Aug. 2021 2194-2200*

Neuromorphic engineering

Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators. *Xiao, T.P.*, +, *TNS May 2021 762-769*

Neutrino interactions

Geant4 Nucleon Momentum Generator. *Grichine, V.M.*, *TNS July 2021 1362-1366*

Neutrino mass

Automatic Test System of the Back-End Card for the JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2121-2126*

Study of Using Machine Learning for Level 1 Trigger Decision in JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2187-2193*

Neutrino oscillations

Automatic Test System of the Back-End Card for the JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2121-2126*

Geant4 Nucleon Momentum Generator. *Grichine, V.M.*, *TNS July 2021 1362-1366*

Neutron absorption

Thermal Neutron Absorption in Printed Circuit Boards. *Platt, S.P.*, +, *TNS April 2021 463-469*

Neutron activation analysis

Chopped Cold Neutron Beam Activation Analysis. *Turkoglu, D.J.*, +, *TNS July 2021 1505-1510*

Neutron-Stimulated Gamma Ray Measurements for Chlorine Detection. *Kavetskiy, A.*, +, *TNS July 2021 1495-1504*

Neutron beams

Chopped Cold Neutron Beam Activation Analysis. *Turkoglu, D.J.*, +, *TNS July 2021 1505-1510*

Dosimetry of Thermal Neutron Beamlines at a Pulsed Spallation Source for Application to the Irradiation of Microelectronics. *Cazzaniga, C.*, +, *TNS May 2021 921-927*

Neutron capture therapy

LLRF Controller for High Current Cyclotron-Based BNCT System. *Fu, X.*, +, *TNS Oct. 2021 2452-2458*

Neutron detection

Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*

Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C.*, +, *TNS June 2021 1244-1250*

- High-Energy and High-Rate X-Ray Measurements Using HfO₂ Nanoparticle-Loaded Plastic Scintillator. *Kishimoto, S.*, +, *TNS Feb. 2021 165-172*
- Improvement in Plastic Scintillator with Loading of BaFBr:Eu²⁺ Radioluminescence Phosphor. *Rajakrishna, K.*, +, *TNS June 2021 1286-1295*
- Multilayered Solid-State Neutron Sensor. *Rice, W.C.*, +, *TNS May 2021 890-896*
- Neutron Response of the EJ-254 Boron-Loaded Plastic Scintillator. *Gabella, G.*, +, *TNS Jan. 2021 46-53*
- Performances of C-BORD's Tagged Neutron Inspection System for Explosives and Illicit Drugs Detection in Cargo Containers. *Sardet, A.*, +, *TNS March 2021 346-353*
- Real-Time Signal Processing for Mitigating SiPM Dark Noise Effects in a Scintillating Neutron Detector. *Pritchard, K.*, +, *TNS July 2021 1519-1527*
- Thermal Neutron Absorption in Printed Circuit Boards. *Platt, S.P.*, +, *TNS April 2021 463-469*
- Value-Assigned Pulse Shape Discrimination for Neutron Detectors. *Teh, F.C.E.*, +, *TNS Aug. 2021 2294-2300*
- Neutron effects**
- 0.1–10 MeV Neutron Soft Error Rate in Accelerator and Atmospheric Environments. *Cecchetto, M.*, +, *TNS May 2021 873-883*
- Characterizing Energetic Dependence of Low-Energy Neutron-Induced SEU and MCU and Its Influence on Estimation of Terrestrial SER in 65-nm Bulk SRAM. *Liao, W.*, +, *TNS June 2021 1228-1234*
- Displacement Damage Characterization of CMOS Single-Photon Avalanche Diodes: Alpha-Particle and Fast-Neutron Measurements. *Malherbe, V.*, +, *TNS May 2021 777-784*
- Dosimetry of Thermal Neutron Beamlines at a Pulsed Spallation Source for Application to the Irradiation of Microelectronics. *Cazzaniga, C.*, +, *TNS May 2021 921-927*
- Evaluating and Mitigating Neutrons Effects on COTS EdgeAI Accelerators. *Blower, S.*, +, *TNS Aug. 2021 1719-1726*
- Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C.*, +, *TNS June 2021 1244-1250*
- How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F.*, +, *TNS May 2021 865-872*
- Impact of Terrestrial Neutrons on the Reliability of SiC VD-MOSFET Technologies. *Martinella, C.*, +, *TNS May 2021 634-641*
- Neutron Radiation Testing of a TMR VexRiscv Soft Processor on SRAM-Based FPGAs. *Wilson, A.E.*, +, *TNS May 2021 1054-1060*
- Relating Gain Degradation to Defects Production in Neutron-Irradiated 4H-SiC Transistors. *Dong, P.*, +, *TNS March 2021 312-317*
- Single-Event Latchup in a 7-nm Bulk FinFET Technology. *Ball, D.R.*, +, *TNS May 2021 830-834*
- TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T.*, +, *TNS May 2021 603-610*
- Neutron flux**
- Neutron-Stimulated Gamma Ray Measurements for Chlorine Detection. *Kavetskiy, A.*, +, *TNS July 2021 1495-1504*
- Proportional–Integral Extended State Observer for Monitoring Nuclear Reactors. *Dong, Z.*, +, *TNS June 2021 1207-1221*
- Neutron sources**
- Development of L-Bent Positron Detectors for μ SR Applications at China Spallation Neutron Source. *Pan, Z.*, +, *TNS Sept. 2021 2407-2413*
- Multiobjective Optimization Shielding Design for Compact Accelerator-Driven Neutron Sources by Application of NSGA-II and MCNP. *Ma, B.*, +, *TNS Feb. 2021 110-117*
- Neutron Response of the EJ-254 Boron-Loaded Plastic Scintillator. *Gabella, G.*, +, *TNS Jan. 2021 46-53*
- Value-Assigned Pulse Shape Discrimination for Neutron Detectors. *Teh, F.C.E.*, +, *TNS Aug. 2021 2294-2300*
- Neutron spectra**
- Value-Assigned Pulse Shape Discrimination for Neutron Detectors. *Teh, F.C.E.*, +, *TNS Aug. 2021 2294-2300*
- Neutrons**
- 0.1–10 MeV Neutron Soft Error Rate in Accelerator and Atmospheric Environments. *Cecchetto, M.*, +, *TNS May 2021 873-883*
- A 3-D Neutron Distribution Reconstruction Method Based on the Off-Situ Measurement for Reactor. *Cao, P.*, +, *TNS Dec. 2021 2694-2701*
- Frame-Level Intermodular Configuration Scrubbing of On-Detector FPGAs for the ARICH at Belle II. *Giordano, R.*, +, *TNS Dec. 2021 2810-2817*
- Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS. *Wang, J.*, +, *TNS May 2021 913-920*
- Ultralow Power System-on-Chip SRAM Characterization by Alpha and Neutron Irradiation. *Haran, A.*, +, *TNS Nov. 2021 2598-2608*
- Nondestructive testing**
- A New CL Reconstruction Method Under the Displaced Sample Stage Scanning Mode. *Zhang, Y.*, +, *TNS Nov. 2021 2574-2586*
- Nonlinear control systems**
- L₁-Adaptive Robust Control Design for a Pressurized Water-Type Nuclear Power Plant. *Vajpayee, V.*, +, *TNS July 2021 1381-1398*
- Proportional–Integral Extended State Observer for Monitoring Nuclear Reactors. *Dong, Z.*, +, *TNS June 2021 1207-1221*
- Nonlinear optics**
- Simulation of Pulsed-Laser-Induced Testing in Microelectronic Devices. *Ryder, L.D.*, +, *TNS Oct. 2021 2496-2507*
- Nonparametric statistics**
- Threats to Resiliency of Redundant Systems Due to Destructive SEEs. *Ladbury, R.*, +, *TNS May 2021 970-979*
- NOR circuits**
- Analysis of Ion-Induced SEFI and SEL Phenomena in 90 nm NOR Flash Memory. *Ju, A.*, +, *TNS Oct. 2021 2508-2515*
- Nuclear and plasma sciences**
- Editorial. *Ritt, S.*, *TNS Aug. 2021 1793*
- Nuclear density**
- Data Acquisition System in the First Commissioning Run of the J-PARC E16 Experiment. *Takahashi, T.*, +, *TNS Aug. 2021 1907-1911*
- Nuclear electronics**
- A Custom Low-Noise Silicon Photodiode Detector Designed for Use With X-Ray Capillary Optics. *Sleator, C.C.*, +, *TNS Aug. 2021 2249-2256*
- A Highly Linear FPGA-Based TDC and a Low-Power Multichannel Readout ASIC With a Shared SAR ADC for SiPM Detectors. *Tang, Y.*, +, *TNS Aug. 2021 2286-2293*
- A Low-Power Time-to-Digital Converter for the CMS Endcap Timing Layer (ETL) Upgrade. *Zhang, W.*, +, *TNS Aug. 2021 1984-1992*
- A New Scheme of Redundant Timing Crosschecking for Front-End Systems. *Xu, J.*, +, *TNS Aug. 2021 1993-1997*
- A Reconfigurable Neural Network ASIC for Detector Front-End Data Compression at the HL-LHC. *Guglielmo, G.D.*, +, *TNS Aug. 2021 2179-2186*
- A Revised Version of the ATLAS Tile Calorimeter Link Daughterboard for the HL-LHC. *Santurio, E.V.*, +, *TNS Sept. 2021 2414-2420*
- A Timing, Trigger, and Control System With Picosecond Precision Based on 10 Gbit/s Passive Optical Networks for High-Energy Physics. *Mendes, E.*, +, *TNS April 2021 447-457*
- ALTAIR: A Low-Noise, Low-Power, High-Speed and Wide Dynamic Range ASIC for X- and γ -Ray Spectroscopy With CdTe/CdZnTe Pixel Detectors. *Macera, D.*, +, *TNS Feb. 2021 182-188*
- An FPGA-Based Trigger System With Online Track Recognition in COMET Phase-I. *Nakazawa, Y.*, +, *TNS Aug. 2021 2028-2034*
- Analytical Model of the Discharge Transient in Pulsed-Reset Charge-Sensitive Amplifiers. *Mele, F.*, +, *TNS July 2021 1511-1518*
- Archiver System Management for Belle II Detector Operation. *Kim, Y.*, +, *TNS Aug. 2021 2146-2150*
- ATLAS Hardware-Based Endcap Muon Trigger for Future Upgrades. *Mino, Y.*, *TNS Aug. 2021 2012-2019*
- Automatic Test System of the Back-End Card for the JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2121-2126*
- Carrier Lifetime and Mobility Characterization Using the DTU 3-D CZT Drift Strip Detector. *Owe, S.H.*, +, *TNS Sept. 2021 2440-2446*
- CentOS Linux for the ATLAS MUCTPI Upgrade. *Spiwoks, R.*, +, *TNS Aug. 2021 2127-2131*
- Cooling and Timing Tests of the ATLAS Fast TracKer VME Boards. *Sottocornola, S.*, +, *TNS Aug. 2021 2051-2058*
- Data Acquisition System for the COMPASS+/ AMBER Experiment. *Frolov, V.*, +, *TNS Aug. 2021 1891-1898*
- Data Acquisition System in the First Commissioning Run of the J-PARC E16 Experiment. *Takahashi, T.*, +, *TNS Aug. 2021 1907-1911*

- Data-Taking Network for COMET Phase-I. *Igarashi, Y.*, +, *TNS Aug. 2021 1884-1890*
- Design and Testing of the Front-End Electronics of WCDA in LHAASO. *Aharonian, F.*, +, *TNS Aug. 2021 2257-2267*
- Design of the Compact Processing Module for the ATLAS Tile Calorimeter. *Carrio, F.*, *TNS Aug. 2021 1944-1951*
- Design of Time-to-Digital Converters for Time-Over-Threshold Measurement in Picosecond Timing Detectors. *Wu, B.*, +, *TNS April 2021 470-476*
- Evaluation of Timepix3 Si and CdTe Hybrid-Pixel Detectors' Spectrometric Performances on X- and Gamma-Rays. *Amoyal, G.*, +, *TNS Feb. 2021 229-235*
- FPGA-Based Real-Time Image Manipulation and Advanced Data Acquisition for 2-D-XRAY Detectors. *Mansour, W.*, +, *TNS Aug. 2021 1927-1932*
- Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C.*, +, *TNS June 2021 1244-1250*
- GAMMA: A 16-Channel Spectroscopic ASIC for SiPMs Readout With 84-dB Dynamic Range. *Buonanno, L.*, +, *TNS Oct. 2021 2559-2572*
- Gigabit Ethernet Daisy Chain on FPGA for COMET Readout Electronics. *Hamada, E.*, +, *TNS Aug. 2021 1968-1975*
- Hi-Beam-A: A Pixelated Beam Monitor for the Accelerator of a Heavy-Ion Therapy Facility. *Zhang, H.*, +, *TNS Aug. 2021 2081-2087*
- High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S.*, +, *TNS Aug. 2021 2268-2278*
- Initial Tests and Characterization of the Readout Electronics for the IXPE Mission. *Barbanera, M.*, +, *TNS May 2021 1144-1151*
- Iterative Retina for High Track Multiplicity in a Barrel-Shaped Tracker and High Magnetic Field. *Deng, W.*, +, *TNS Aug. 2021 1937-1943*
- LLRF Controller for High Current Cyclotron-Based BNCT System. *Fu, X.*, +, *TNS Oct. 2021 2452-2458*
- New Software-Based Readout Driver for the ATLAS Experiment. *Kolos, S.*, +, *TNS Aug. 2021 1811-1817*
- Nonlinearity Simulation of Digital SiPM Response for Inhomogeneous Light. *Kumar, S.*, +, *TNS March 2021 354-358*
- Operational Experience and Evolution of the ATLAS Tile Hadronic Calorimeter Read-Out Drivers. *Valero, A.*, *TNS Aug. 2021 1807-1810*
- PCI-Express Based High-Speed Readout for the Belle II DAQ Upgrade. *Zhou, Q.D.*, +, *TNS Aug. 2021 1818-1825*
- Performance of Larger-Volume $40 \times 40 \times 10$ - and $40 \times 40 \times 15$ -mm³ CdZnTe Detectors. *Zhu, Y.*, +, *TNS Feb. 2021 250-255*
- Performance of the Data-Handling Hub Readout System for the Belle II Pixel Detector. *Huber, S.*, +, *TNS Aug. 2021 1961-1967*
- Performance of the High-Level Trigger System at CMS in LHC Run-2. *Choudhury, S.*, *TNS Aug. 2021 2035-2042*
- Performance of the Unified Readout System of Belle II. *Nakao, M.*, +, *TNS Aug. 2021 1826-1832*
- Preliminary Study on the Timing Characteristics of a Fast SiPM for the TOF of the Beam Line in IHEP. *Yan, M.*, +, *TNS Aug. 2021 2096-2100*
- ProtoDUNE-DP Light Acquisition and Calibration Software. *Belver, D.*, +, *TNS Sept. 2021 2334-2341*
- Prototype Data Acquisition and Slow Control Systems for the Mu2e Experiment. *Gioiosa, A.*, +, *TNS Aug. 2021 1862-1868*
- Readout Electronics Prototype of TOF Detectors in CEE of HIRFL. *Lu, J.*, +, *TNS Aug. 2021 1976-1983*
- Readout Firmware of the Vertex Locator for LHCb Run 3 and Beyond. *Hennesy, K.*, +, *TNS Oct. 2021 2472-2479*
- SIRIO: A High-Speed CMOS Charge-Sensitive Amplifier for High-Energy-Resolution X- γ Ray Spectroscopy With Semiconductor Detectors. *Mele, F.*, +, *TNS March 2021 379-383*
- Study of Using Machine Learning for Level 1 Trigger Decision in JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2187-2193*
- The GossipGUI Framework for Control and Benchmarking of Readout Electronics Front-Ends. *Adamczewski-Musch, J.*, +, *TNS Aug. 2021 2074-2080*
- The MiniSDD-Based 1-Mpixel Camera of the DSSC Project for the European XFEL. *Porro, M.*, +, *TNS June 2021 1334-1350*
- The Mu3e Data Acquisition. *Augustin, H.*, +, *TNS Aug. 2021 1833-1840*
- The ReadoutCard Userspace Driver for the New Alice O² Computing System. *Alexopoulos, K.*, +, *TNS Aug. 2021 1876-1883*
- The Stereoscopic Analog Trigger of the MAGIC Telescopes. *Dazzi, F.*, +, *TNS July 2021 1473-1486*
- The Study of Calibration for the Hybrid Pixel Detector With Single Photon Counting in HEPs-BPIX. *Ding, Y.*, +, *TNS Aug. 2021 2088-2095*
- The Timing Resolution of IHEP-NDL LGAD Sensors With Different Active Layer Thicknesses. *Li, M.*, +, *TNS Aug. 2021 2309-2314*
- Thermal Neutron Absorption in Printed Circuit Boards. *Platt, S.P.*, +, *TNS April 2021 463-469*
- Time Resolution of BC422 Plastic Scintillator Read Out by a SiPM. *Stoykov, A.*, +, *TNS July 2021 1487-1494*
- White Rabbit Time Synchronization for Radiation Detector Readout Electronics. *Hennig, W.*, +, *TNS Aug. 2021 2059-2065*
- X- γ Ray Spectroscopy With a CdTe Pixel Detector and SIRIO Preamplifier at Deep Submicrosecond Signal-Processing Time. *Sammartini, M.*, +, *TNS Jan. 2021 70-75*
- Nuclear energy levels**
- A Development of a 40-Gb/s Readout Interface STARE for the AGATA Project. *Karkour, N.*, +, *TNS Aug. 2021 2005-2011*
- Geant4 Nucleon Momentum Generator. *Grichine, V.M.*, *TNS July 2021 1362-1366*
- Nuclear engineering computing**
- Design of Time-to-Digital Converters for Time-Over-Threshold Measurement in Picosecond Timing Detectors. *Wu, B.*, +, *TNS April 2021 470-476*
- Improved Localization Precision and Angular Resolution of a Cylindrical, Time-Encoded Imaging System From Adaptive Detector Movements. *Shah, N.P.*, +, *TNS April 2021 410-425*
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- Nuclear explosions**
- Simulations of Internal Charging Effects of Artificial Radiation Belt on Dielectric Material. *Zuo, Y.*, +, *TNS May 2021 1120-1128*
- Nuclear fragmentation**
- Performance Evaluation of the TOF-Wall Detector of the FOOT Experiment. *Morrocchi, M.*, +, *TNS May 2021 1161-1168*
- The Fragmentation Of Target (FOOT) Experiment and Its DAQ System. *Biondi, S.*, *TNS Oct. 2021 2464-2471*
- Nuclear imaging**
- Improved Gamma-Ray Point Source Quantification in Three Dimensions by Modeling Attenuation in the Scene. *Bandstra, M.S.*, +, *TNS Nov. 2021 2637-2646*
- Nuclear mass**
- Data Acquisition System in the First Commissioning Run of the J-PARC E16 Experiment. *Takahashi, T.*, +, *TNS Aug. 2021 1907-1911*
- Nuclear materials safeguards**
- Application of a Simple, Spiking, Locally Competitive Algorithm to Radio-nuclide Identification. *Carson, M.*, +, *TNS March 2021 292-304*
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- Bayesian Approach for Multigamma Radionuclide Quantification Applied on Weakly Attenuating Nuclear Waste Drums. *Clement, A.*, +, *TNS Sept. 2021 2342-2349*
- Performances of C-BORD's Tagged Neutron Inspection System for Explosives and Illicit Drugs Detection in Cargo Containers. *Sardet, A.*, +, *TNS March 2021 346-353*
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- Nuclei with mass number 190 to 219**
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- Proportional-Integral Extended State Observer for Monitoring Nuclear Reactors. *Dong, Z.*, +, *TNS June 2021 1207-1221*

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Numerical simulation

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3-D Object Tracking in Panoramic Video and LiDAR for Radiological Source–Object Attribution and Improved Source Detection. *Marshall, M.R.*, +, *TNS Feb. 2021 189-202*

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Combined Temperature and Radiation Effects on the Gain of Er- and Er–Yb-Doped Fiber Amplifiers. *Aubry, M.*, +, *TNS May 2021 793-800*

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Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays. *Blanchet, T.*, +, *TNS Aug. 2021 1681-1687*

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Photobleaching Effect on Infrared Radiation-Induced Attenuation of Germanosilicate Optical Fibers at MGy Dose Levels. *Campanella, C.*, +, *TNS Aug. 2021 1688-1693*

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Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*

Optical glass

Photobleaching Effect on Infrared Radiation-Induced Attenuation of Germanosilicate Optical Fibers at MGy Dose Levels. *Campanella, C.*, +, *TNS Aug. 2021 1688-1693*

Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*

Optical imaging

3-D Optical Imaging System of Muon Beams Using a Silver Activated Zinc Sulfide (ZnS(Ag)) Sheet Combined With a Mirror. *Yamamoto, S.*, +, *TNS Dec. 2021 2748-2752*

Optical links

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Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. *Shawkat, M.S.A.*, +, *TNS March 2021 279-291*

Optical radar

3-D Object Tracking in Panoramic Video and LiDAR for Radiological Source–Object Attribution and Improved Source Detection. *Marshall, M.R.*, +, *TNS Feb. 2021 189-202*

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Photobleaching Effect on Infrared Radiation-Induced Attenuation of Germanosilicate Optical Fibers at MGy Dose Levels. *Campanella, C.*, +, *TNS Aug. 2021 1688-1693*

Optical testing

Development of the Calibration System and Characterization of the Avalanche Photodiode for Scintillation Detection. *Jegal, J.*, +, *TNS June 2021 1304-1308*

Optical transceivers

A 10-Gb/s Driver/Receiver ASIC and Optical Modules for Particle Physics Experiments. *Huang, X.*, +, *TNS Aug. 2021 1998-2004*

A Clock Distribution and Synchronization Scheme Over Optical Links for Large-Scale Physics Experiments. *Hu, Y.*, +, *TNS June 2021 1351-1358*

Optical transfer function

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Optical waveguides

Optical Single-Event Transients Induced in Integrated Silicon-Photonic Waveguides by Two-Photon Absorption. *Tzintzarov, G.N.*, +, *TNS May 2021 785-792*

Single-Event Transient Response of Vertical and Lateral Waveguide-Integrated Germanium Photodiodes. *Ryder, L.D.*, +, *TNS May 2021 801-806*

Optimization

A Generic Streaming Software Platform Design for High-Energy Physics Data Acquisition Systems. *Wang, T.*, +, *TNS Feb. 2021 101-109*

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Organic compounds

Improvement in Plastic Scintillator with Loading of BaFBr:Eu²⁺ Radioluminescence Phosphor. *Rajakrishna, K.*, +, *TNS June 2021 1286-1295*

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Characterization of a Small-Scale Prototype Detector With Wide Dynamic Range for Time-Resolved High-Energy X-Ray Applications. *Shanks, K.S.*, +, *TNS Dec. 2021 2753-2761*

FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics. *Marini, F.*, +, *TNS Aug. 2021 1952-1960*

Single-Event Effect Responses of Integrated Planar Inductors in 65-nm CMOS. *Biereigel, S.*, +, *TNS Nov. 2021 2587-2597*

Oscilloscopes

Preliminary Study on the Timing Characteristics of a Fast SiPM for the TOF of the Beam Line in IHEP. *Yan, M.*, +, *TNS Aug. 2021 2096-2100*

Study on Time Test Systems for Ultra-Fast Photodetectors. *Hu, Q.*, +, *TNS Aug. 2021 2101-2104*

Oxidation

Defect-Induced Phase Transition in Hafnium Oxide Thin Films: Comparing Heavy Ion Irradiation and Oxygen-Engineering Effects. *Vogel, T.*, +, *TNS Aug. 2021 1542-1547*

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Effects of Ionization and Displacement Damage in AlGaIn/GaN HEMT Devices Caused by Various Heavy Ions. *Wan, P.*, +, *TNS June 2021 1265-1271*

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Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*

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Single-Event Transient Response of Vertical and Lateral Waveguide-Integrated Germanium Photodiodes. *Ryder, L.D.*, +, *TNS May 2021 801-806*

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Improved Gamma-Ray Point Source Quantification in Three Dimensions by Modeling Attenuation in the Scene. *Bandstra, M.S.*, +, *TNS Nov. 2021 2637-2646*

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Accelerated Deep Reinforcement Learning for Fast Feedback of Beam Dynamics at KARA. *Wang, W.*, +, *TNS Aug. 2021 1794-1800*

Experimental Research on HLS-II Performance by Means of the RF Phase Modulation Technique. *Zhao, Y.*, +, *TNS Feb. 2021 92-100*

Investigations Into X-Band Dielectric Assist Accelerating Structures for Future Linear Accelerators. *Wei, Y.*, +, *TNS May 2021 1062-1071*

LLRF Controller for High Current Cyclotron-Based BNCT System. *Fu, X.*, +, *TNS Oct. 2021 2452-2458*

Optimization of Beam Arrival and Flight Time Measurement System Based on Cavity Monitors at the SXFEL. *Cao, S.*, +, *TNS Jan. 2021 2-8*

Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G.*, +, *TNS Jan. 2021 9-20*

Particle beam diagnostics

Development of a High-Resolution Digital Beam Position Processor for the Hefei Advanced Light Facility Preresearch Project. *Huang, L.*, +, *TNS Aug. 2021 2239-2248*

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Hi'Beam-A: A Pixelated Beam Monitor for the Accelerator of a Heavy-Ion Therapy Facility. *Zhang, H.*, +, *TNS Aug. 2021 2081-2087*

Symmetry Exploitation in Orbit Feedback Systems of Synchrotrons for Computational Efficiency. *Kempf, I.*, +, *TNS March 2021 258-269*

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Accelerated Deep Reinforcement Learning for Fast Feedback of Beam Dynamics at KARA. *Wang, W.*, +, *TNS Aug. 2021 1794-1800*

Analytical RF Pulse Heating Analysis for High Gradient Accelerating Structures. *Gonzalez-Iglesias, D.*, +, *TNS Feb. 2021 78-91*

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Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G.*, +, *TNS Jan. 2021 9-20*

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LLRF Controller for High Current Cyclotron-Based BNCT System. *Fu, X.*, +, *TNS Oct. 2021 2452-2458*

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Particle beam stability

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A Reconfigurable Neural Network ASIC for Detector Front-End Data Compression at the HL-LHC. *Guglielmo, G.D.*, +, *TNS Aug. 2021 2179-2186*

A Revised Version of the ATLAS Tile Calorimeter Link Daughterboard for the HL-LHC. *Santurio, E.V.*, +, *TNS Sept. 2021 2414-2420*

Archiver System Management for Belle II Detector Operation. *Kim, Y.*, +, *TNS Aug. 2021 2146-2150*

CentOS Linux for the ATLAS MUCTPI Upgrade. *Spiwoks, R.*, +, *TNS Aug. 2021 2127-2131*

Design and Beam Test Results for the 2-D Projective sPHENIX Electromagnetic Calorimeter Prototype. *Aidala, C.A.*, +, *TNS Feb. 2021 173-181*

Design of the Compact Processing Module for the ATLAS Tile Calorimeter. *Carrion, F.*, +, *TNS Aug. 2021 1944-1951*

Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C.*, +, *TNS June 2021 1244-1250*

Multiplexing Firmware Prototypes for the Global Trigger Subsystem of ATLAS Phase-II Upgrade. *Bonini, F.*, +, *TNS Sept. 2021 2421-2428*

Operational Experience and Evolution of the ATLAS Tile Hadronic Calorimeter Read-Out Drivers. *Valero, A.*, +, *TNS Aug. 2021 1807-1810*

Particle detectors

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Monitoring of Particle Count Rate and LET Variations With Pulse Stretching Inverters. *Andjelkovic, M.*, +, *TNS Aug. 2021 1772-1781*

Performance of the Unified Readout System of Belle II. *Nakao, M.*, +, *TNS Aug. 2021 1826-1832*

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ATLAS Hardware-Based Endcap Muon Trigger for Future Upgrades. *Mino, Y.*, *TNS Aug. 2021 2012-2019*

Cooling and Timing Tests of the ATLAS Fast TracKer VME Boards. *Sottocornola, S.*, +, *TNS Aug. 2021 2051-2058*

Iterative Retina for High Track Multiplicity in a Barrel-Shaped Tracker and High Magnetic Field. *Deng, W.*, +, *TNS Aug. 2021 1937-1943*

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Hydrogen-Related Recovery Effect of AlGaIn/GaN High-Electron-Mobility Transistors Irradiated by High-Fluence Protons. *Chen, Z.*, +, *TNS Feb. 2021 118-123*

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A Timing, Trigger, and Control System With Picosecond Precision Based on 10 Gbit/s Passive Optical Networks for High-Energy Physics. *Mendes, E.*, +, *TNS April 2021 447-457*

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A New Technique Based on Convolutional Neural Networks to Measure the Energy of Protons and Electrons With a Single Timepix Detector. *Ruffenach, M.*, +, *TNS Aug. 2021 1746-1753*

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Analysis of Single-Event Transients (SETs) Using Machine Learning (ML) and Ionizing Radiation Effects Spectroscopy (IRES). *Loveless, T.D.*, +, *TNS Aug. 2021 1600-1606*

Design and Verification of a 6.25 GHz LC-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. *Monda, D.*, +, *TNS Oct. 2021 2524-2532*

Single-Event Effect Responses of Integrated Planar Inductors in 65-nm CMOS. *Biereigel, S.*, +, *TNS Nov. 2021 2587-2597*

Phase modulation

Experimental Research on HLS-II Performance by Means of the RF Phase Modulation Technique. *Zhao, Y.*, +, *TNS Feb. 2021 92-100*

Phase noise

Design and Verification of a 6.25 GHz LC-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. *Monda, D.*, +, *TNS Oct. 2021 2524-2532*

Phosphors

Improvement in Plastic Scintillator with Loading of BaFBr:Eu²⁺ Radioluminescence Phosphor. *Rajakrishna, K.*, +, *TNS June 2021 1286-1295*

Phosphorus

Operating Temperature Range of Phosphorous-Doped Optical Fiber Dosimeters Exploiting Infrared Radiation-Induced Attenuation. *Morana, A.*, +, *TNS May 2021 906-912*

Phosphorus compounds

Operating Temperature Range of Phosphorous-Doped Optical Fiber Dosimeters Exploiting Infrared Radiation-Induced Attenuation. *Morana, A.*, +, *TNS May 2021 906-912*

Photoconductivity

A Charge Collection Equivalent Method for Laser Simulation of Dose Rate Effects With Improved Performance. *Tang, G.*, +, *TNS June 2021 1235-1243*

Electron Irradiation Effect on Van Der Waals Transistor for High-Detectivity Near-Infrared Photodetectors. *Pengfei, H.*, +, *TNS March 2021 318-324*

Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*

Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs. *Rony, M.W.*, +, *TNS May 2021 807-814*

Photodetectors

A Custom Low-Noise Silicon Photodiode Detector Designed for Use With X-Ray Capillary Optics. *Sleator, C.C.*, +, *TNS Aug. 2021 2249-2256*

Development of the Calibration System and Characterization of the Avalanche Photodiode for Scintillation Detection. *Jegal, J.*, +, *TNS June 2021 1304-1308*

Electron Irradiation Effect on Van Der Waals Transistor for High-Detectivity Near-Infrared Photodetectors. *Pengfei, H.*, +, *TNS March 2021 318-324*

How to Improve the Performance of Fast Timing Detector. *Ma, L.*, +, *TNS Oct. 2021 2459-2463*

Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. *Shawkat, M.S.A.*, +, *TNS March 2021 279-291*

Nonlinearity Simulation of Digital SiPM Response for Inhomogeneous Light. *Kumar, S.*, +, *TNS March 2021 354-358*

Real-Time Signal Processing for Mitigating SiPM Dark Noise Effects in a Scintillating Neutron Detector. *Pritchard, K.*, +, *TNS July 2021 1519-1527*

Study on Time Test Systems for Ultra-Fast Photodetectors. *Hu, Q.*, +, *TNS Aug. 2021 2101-2104*

Photodiodes

- A Custom Low-Noise Silicon Photodiode Detector Designed for Use With X-Ray Capillary Optics. *Sleator, C.C.*, +, *TNS Aug. 2021 2249-2256*
- Evaluation of the Radiation Hardness of Photodiodes in 180-nm CMOS Technology for Medical Applications. *Segmanovic, F.*, +, *TNS Sept. 2021 2367-2374*
- Mapping the Spatial Dependence of Charge-Collection Efficiency in Semiconductor Devices Using Pulsed-Laser Testing. *Hales, J.M.*, +, *TNS May 2021 617-625*

Photoemission

- Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*

Photoluminescence

- Comparison of Photoluminescence and Scintillation Properties Between $\text{Lu}_2\text{O}_3:\text{Eu}$ Single Crystal and Transparent Ceramic. *Haihang, Y.*, +, *TNS April 2021 477-482*
- Improvement in Plastic Scintillator with Loading of $\text{BaFBr}:\text{Eu}^{2+}$ Radioluminescence Phosphor. *Rajakrishna, K.*, +, *TNS June 2021 1286-1295*
- Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*

Photomultipliers

- A Highly Linear FPGA-Based TDC and a Low-Power Multichannel Read-out ASIC With a Shared SAR ADC for SiPM Detectors. *Tang, Y.*, +, *TNS Aug. 2021 2286-2293*
- A Revised Version of the ATLAS Tile Calorimeter Link Daughterboard for the HL-LHC. *Santurio, E.V.*, +, *TNS Sept. 2021 2414-2420*
- A Study on Energy Resolution of CANDLES Detector. *Khai, B.T.*, +, *TNS March 2021 368-378*
- Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K.*, +, *TNS June 2021 1319-1324*
- Design and Implementation of a Portable High-Performance Gamma-Ray Camera. *Zhu, B.*, +, *TNS June 2021 1309-1318*
- Design and Testing of the Front-End Electronics of WCDA in LHAASO. *Aharonian, F.*, +, *TNS Aug. 2021 2257-2267*
- Design of Time-to-Digital Converters for Time-Over-Threshold Measurement in Picosecond Timing Detectors. *Wu, B.*, +, *TNS April 2021 470-476*
- Development of L-Bent Positron Detectors for μSR Applications at China Spallation Neutron Source. *Pan, Z.*, +, *TNS Sept. 2021 2407-2413*
- Dual-Energy Micro-CT Using GAGG:Ce and LYSO:Ce Scintillators. *Xia, X.*, +, *TNS Feb. 2021 236-244*
- Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C.*, +, *TNS June 2021 1244-1250*
- GAMMA: A 16-Channel Spectroscopic ASIC for SiPMs Readout With 84-dB Dynamic Range. *Buonanno, L.*, +, *TNS Oct. 2021 2559-2572*
- High-Energy and High-Rate X-Ray Measurements Using HfO_2 Nanoparticle-Loaded Plastic Scintillator. *Kishimoto, S.*, +, *TNS Feb. 2021 165-172*
- Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. *Shawkat, M.S.A.*, +, *TNS March 2021 279-291*
- Nonlinearity Simulation of Digital SiPM Response for Inhomogeneous Light. *Kumar, S.*, +, *TNS March 2021 354-358*
- Novel Model for Analysis and Optimization of Silicon Photomultiplier-Based Scintillation Systems. *Sommer, M.*, +, *TNS Dec. 2021 2771-2778*
- Numerical Simulation Study on Gain Nonlinearity of Microchannel Plate in Photomultiplier Tube. *Guo, L.*, +, *TNS Dec. 2021 2711-2716*
- Operational Experience and Evolution of the ATLAS Tile Hadronic Calorimeter Read-Out Drivers. *Valero, A.*, *TNS Aug. 2021 1807-1810*
- Performance Evaluation of the TOF-Wall Detector of the FOOT Experiment. *Morrocchi, M.*, +, *TNS May 2021 1161-1168*
- Preliminary Study on the Timing Characteristics of a Fast SiPM for the TOF of the Beam Line in IHEP. *Yan, M.*, +, *TNS Aug. 2021 2096-2100*
- ProtoDUNE-DP Light Acquisition and Calibration Software. *Belver, D.*, +, *TNS Sept. 2021 2334-2341*
- Pulse Shape Discrimination of CsI(Tl) With a Photomultiplier Tube and Multipixel Photon Counters. *Viet, N.V.H.*, +, *TNS Feb. 2021 203-210*
- Real-Time Signal Processing for Mitigating SiPM Dark Noise Effects in a Scintillating Neutron Detector. *Pritchard, K.*, +, *TNS July 2021 1519-1527*

- Study of Using Machine Learning for Level 1 Trigger Decision in JUNO Experiment. *Clerbaux, B.*, +, *TNS Aug. 2021 2187-2193*
- Study on Time Test Systems for Ultra-Fast Photodetectors. *Hu, Q.*, +, *TNS Aug. 2021 2101-2104*
- Time Resolution of BC422 Plastic Scintillator Read Out by a SiPM. *Stoykov, A.*, +, *TNS July 2021 1487-1494*
- Value-Assigned Pulse Shape Discrimination for Neutron Detectors. *Teh, F.C.E.*, +, *TNS Aug. 2021 2294-2300*

Photon counting

- A Study on Energy Resolution of CANDLES Detector. *Khai, B.T.*, +, *TNS March 2021 368-378*
- FPGA-Based Real-Time Image Manipulation and Advanced Data Acquisition for 2-D-XRAY Detectors. *Mansour, W.*, +, *TNS Aug. 2021 1927-1932*
- Nonlinearity Simulation of Digital SiPM Response for Inhomogeneous Light. *Kumar, S.*, +, *TNS March 2021 354-358*
- Personal Dosimetry in Continuous Photon Radiation Fields With the Dosepix Detector. *Haag, D.*, +, *TNS May 2021 1129-1134*
- Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X.*, +, *TNS Jan. 2021 27-35*
- Pulse Shape Discrimination of CsI(Tl) With a Photomultiplier Tube and Multipixel Photon Counters. *Viet, N.V.H.*, +, *TNS Feb. 2021 203-210*
- The Study of Calibration for the Hybrid Pixel Detector With Single Photon Counting in HEPS-BPIX. *Ding, Y.*, +, *TNS Aug. 2021 2088-2095*

Physics computing

- Tau Identification With Deep Neural Networks at the CMS Experiment. *Choudhury, S.*, *TNS Aug. 2021 2194-2200*

Pion-nucleus reactions

- The Pion Single-Event Latch-Up Cross Section Enhancement: Mechanisms and Consequences for Accelerator Hardness Assurance. *Coronetti, A.*, +, *TNS Aug. 2021 1613-1622*

Planetary satellites

- Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D.*, +, *TNS May 2021 716-723*

Plasma temperature

- Diagnostic Data Integration Using Deep Neural Networks for Real-Time Plasma Analysis. *Rigoni Garola, A.*, +, *TNS Aug. 2021 2165-2172*

Plasma toroidal confinement

- Integrated Real-Time Supervisory Management for Off-Normal-Event Handling and Feedback Control of Tokamak Plasmas. *Vu, T.*, +, *TNS Aug. 2021 1855-1861*

Poisson equation

- Particle Tracking With Space Charge Effects Using Graphics Processing Unit. *Kurimoto, Y.*, *TNS Aug. 2021 1912-1919*

Polarimetry

- Polarimetry With a Multilayer CdTe Prototype for Soft Gamma-Ray Astrophysics. *Moita, M.*, +, *TNS Nov. 2021 2655-2660*

Polymer blends

- Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*

Polymer structure

- Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*

Polymerization

- Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*

Polymers

- Improvement in Plastic Scintillator with Loading of $\text{BaFBr}:\text{Eu}^{2+}$ Radioluminescence Phosphor. *Rajakrishna, K.*, +, *TNS June 2021 1286-1295*
- Variation of Permittivity and Dark Conductivity of Polyimide and FR4 With Electron Dose by Experiments. *Song, S.*, +, *TNS Sept. 2021 2375-2382*

Position sensitive particle detectors

- A Development of a 40-Gb/s Readout Interface STARE for the AGATA Project. *Karkour, N.*, +, *TNS Aug. 2021 2005-2011*

- A Low-Power Time-to-Digital Converter for the CMS Endcap Timing Layer (ETL) Upgrade. *Zhang, W.*, +, *TNS Aug. 2021 1984-1992*
- A New Technique Based on Convolutional Neural Networks to Measure the Energy of Protons and Electrons With a Single Timepix Detector. *Ruffenach, M.*, +, *TNS Aug. 2021 1746-1753*
- A Reconfigurable Neural Network ASIC for Detector Front-End Data Compression at the HL-LHC. *Guglielmo, G.D.*, +, *TNS Aug. 2021 2179-2186*
- A Revised Version of the ATLAS Tile Calorimeter Link Daughterboard for the HL-LHC. *Santurio, E.V.*, +, *TNS Sept. 2021 2414-2420*
- ALTAIR: A Low-Noise, Low-Power, High-Speed and Wide Dynamic Range ASIC for X- and γ -Ray Spectroscopy With CdTe/CdZnTe Pixel Detectors. *Macera, D.*, +, *TNS Feb. 2021 182-188*
- Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K.*, +, *TNS June 2021 1319-1324*
- Archiver System Management for Belle II Detector Operation. *Kim, Y.*, +, *TNS Aug. 2021 2146-2150*
- ATLAS Hardware-Based Endcap Muon Trigger for Future Upgrades. *Mino, Y.*, *TNS Aug. 2021 2012-2019*
- Carrier Lifetime and Mobility Characterization Using the DTU 3-D CZT Drift Strip Detector. *Owe, S.H.*, +, *TNS Sept. 2021 2440-2446*
- CentOS Linux for the ATLAS MUCTPI Upgrade. *Spiwoks, R.*, +, *TNS Aug. 2021 2127-2131*
- Cooling and Timing Tests of the ATLAS Fast TracKer VME Boards. *Sottocornola, S.*, +, *TNS Aug. 2021 2051-2058*
- Design and Beam Test Results for the 2-D Projective sPHENIX Electromagnetic Calorimeter Prototype. *Aidala, C.A.*, +, *TNS Feb. 2021 173-181*
- Design and Implementation of a Portable High-Performance Gamma-Ray Camera. *Zhu, B.*, +, *TNS June 2021 1309-1318*
- Design of the Compact Processing Module for the ATLAS Tile Calorimeter. *Carrio, F.*, *TNS Aug. 2021 1944-1951*
- Evaluation of Timepix3 Si and CdTe Hybrid-Pixel Detectors' Spectrometric Performances on X- and Gamma-Rays. *Amoyal, G.*, +, *TNS Feb. 2021 229-235*
- Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C.*, +, *TNS June 2021 1244-1250*
- Hi-BEAM-A: A Pixelated Beam Monitor for the Accelerator of a Heavy-Ion Therapy Facility. *Zhang, H.*, +, *TNS Aug. 2021 2081-2087*
- How to Improve the Performance of Fast Timing Detector. *Ma, L.*, +, *TNS Oct. 2021 2459-2463*
- Initial Tests and Characterization of the Readout Electronics for the IXPE Mission. *Barbanera, M.*, +, *TNS May 2021 1144-1151*
- Iterative Retina for High Track Multiplicity in a Barrel-Shaped Tracker and High Magnetic Field. *Deng, W.*, +, *TNS Aug. 2021 1937-1943*
- Multiplexing Firmware Prototypes for the Global Trigger Subsystem of ATLAS Phase-II Upgrade. *Bonini, F.*, +, *TNS Sept. 2021 2421-2428*
- New Software-Based Readout Driver for the ATLAS Experiment. *Kolos, S.*, +, *TNS Aug. 2021 1811-1817*
- Operational Experience and Evolution of the ATLAS Tile Hadronic Calorimeter Read-Out Drivers. *Valero, A.*, *TNS Aug. 2021 1807-1810*
- Performance of the High-Level Trigger System at CMS in LHC Run-2. *Choudhury, S.*, *TNS Aug. 2021 2035-2042*
- Performance of the Unified Readout System of Belle II. *Nakao, M.*, +, *TNS Aug. 2021 1826-1832*
- Polaris-LAMP: Multi-Modal 3-D Image Reconstruction With a Commercial Gamma-Ray Imager. *Hecla, J.*, +, *TNS Oct. 2021 2539-2549*
- Preliminary Study on the Timing Characteristics of a Fast SiPM for the TOF of the Beam Line in IHEP. *Yan, M.*, +, *TNS Aug. 2021 2096-2100*
- Pulse Shape Discrimination of CsI(Tl) With a Photomultiplier Tube and Multipixel Photon Counters. *Viet, N.V.H.*, +, *TNS Feb. 2021 203-210*
- Readout Electronics Prototype of TOF Detectors in CEE of HIRFL. *Lu, J.*, +, *TNS Aug. 2021 1976-1983*
- Readout Firmware of the Vertex Locator for LHCb Run 3 and Beyond. *Hennessy, K.*, +, *TNS Oct. 2021 2472-2479*
- Row-Column Readout Method to Mitigate Radiographic-Image Blurring From Multipixel Events in a Coded-Aperture Imaging System. *Boo, J.*, +, *TNS May 2021 1175-1183*
- The MiniSDD-Based 1-Mpixel Camera of the DSSC Project for the European XFEL. *Porro, M.*, +, *TNS June 2021 1334-1350*
- The Mu3e Data Acquisition. *Augustin, H.*, +, *TNS Aug. 2021 1833-1840*
- The Study of Calibration for the Hybrid Pixel Detector With Single Photon Counting in HEPS-BPIX. *Ding, Y.*, +, *TNS Aug. 2021 2088-2095*
- Positron emission tomography**
- Development of Multichannel High Time Resolution Data Acquisition System for TOT-ASIC. *Sato, S.*, +, *TNS Aug. 2021 1801-1806*
- Potassium**
- Measuring and Mapping Potassium in Agricultural Fields Using Gamma Spectroscopy. *Kavetskiy, A.*, +, *TNS Oct. 2021 2550-2558*
- Power generation control**
- Load-Frequency Control With Multimodule Small Modular Reactor Configuration: Modeling and Dynamic Analysis. *Sabir, A.*, +, *TNS July 2021 1367-1380*
- Power HEMT**
- Backside Laser Testing of Single-Event Effects in GaN-on-Si Power HEMTs. *Ngom, C.*, +, *TNS Aug. 2021 1642-1650*
- Heavy-Ion Testing Method and Results of Normally OFF GaN-Based High-Electron-Mobility Transistor. *Sauveplane, J.*, +, *TNS Oct. 2021 2488-2495*
- Power MOSFET**
- Analysis and Mitigation of Single-Event Gate Rupture in VDMOS With Termination Structure. *Chen, Z.*, +, *TNS June 2021 1272-1278*
- Analysis of SEGR in Silicon Planar Gate Super-Junction Power MOSFETs. *Muthuseenu, K.*, +, *TNS May 2021 611-616*
- Effects of Breakdown Voltage on Single-Event Burnout Tolerance of High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS July 2021 1430-1435*
- Impact of Terrestrial Neutrons on the Reliability of SiC VD-MOSFET Technologies. *Martinella, C.*, +, *TNS May 2021 634-641*
- Ion-Induced Mesoplasma Formation and Thermal Destruction in 4H-SiC Power MOSFET Devices. *McPherson, J.A.*, +, *TNS May 2021 651-658*
- Modeling COTS System TID Response With Monte Carlo Sampling and Transistor Swapping Experiments. *Smith, M.B.*, +, *TNS May 2021 1008-1013*
- Neutron-Induced Failure Dependence on Reverse Gate Voltage for SiC Power MOSFETs in Atmospheric Environment. *Niskanen, K.*, +, *TNS Aug. 2021 1623-1632*
- Power semiconductor diodes**
- Effects of Breakdown Voltage on Single-Event Burnout Tolerance of High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS July 2021 1430-1435*
- Power system control**
- Integrated Real-Time Supervisory Management for Off-Normal-Event Handling and Feedback Control of Tokamak Plasmas. *Vu, T.*, +, *TNS Aug. 2021 1855-1861*
- Load-Frequency Control With Multimodule Small Modular Reactor Configuration: Modeling and Dynamic Analysis. *Sabir, A.*, +, *TNS July 2021 1367-1380*
- Preamplifiers**
- Analytical Model of the Discharge Transient in Pulsed-Reset Charge-Sensitive Amplifiers. *Mele, F.*, +, *TNS July 2021 1511-1518*
- Carrier Lifetime and Mobility Characterization Using the DTU 3-D CZT Drift Strip Detector. *Owe, S.H.*, +, *TNS Sept. 2021 2440-2446*
- High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S.*, +, *TNS Aug. 2021 2268-2278*
- New Models of PADI, an Ultrafast Preamplifier-Discriminator ASIC for Time-of-Flight Measurements. *Ciobanu, M.*, +, *TNS June 2021 1325-1333*
- Readout Electronics Prototype of TOF Detectors in CEE of HIRFL. *Lu, J.*, +, *TNS Aug. 2021 1976-1983*
- X-Ray Spectroscopy With a CdTe Pixel Detector and SIRIO Preamplifier at Deep Submicrosecond Signal-Processing Time. *Sammartini, M.*, +, *TNS Jan. 2021 70-75*
- Preforms**
- Investigation by Thermoluminescence of the Ionization and Annealing Processes in Irradiated Ge-Doped Silica Fiber Preform. *Gutilla, A.*, +, *TNS Aug. 2021 1556-1564*
- Price, William E.**
- In Memoriam William E. Price (1926—2020). *TNS May 2021 506*

Principal component analysis

Development of Neural Network Model With Explainable AI for Measuring Uranium Enrichment. *Ryu, J.*, +, *TNS Nov. 2021 2670-2681*

Printed circuits

Modeling COTS System TID Response With Monte Carlo Sampling and Transistor Swapping Experiments. *Smith, M.B.*, +, *TNS May 2021 1008-1013*

Thermal Neutron Absorption in Printed Circuit Boards. *Platt, S.P.*, +, *TNS April 2021 463-469*

Program compilers

Investigating How Software Characteristics Impact the Effectiveness of Automated Software Fault Tolerance. *James, B.*, +, *TNS May 2021 1014-1022*

Program diagnostics

Investigating How Software Characteristics Impact the Effectiveness of Automated Software Fault Tolerance. *James, B.*, +, *TNS May 2021 1014-1022*

Programmable logic devices

Diagnostic Data Integration Using Deep Neural Networks for Real-Time Plasma Analysis. *Rigoni Garola, A.*, +, *TNS Aug. 2021 2165-2172*

Protocols

A Dual Module Parallel Readout System Based on 10 Gb TCP/IP Transmission for HEPs-BPIX Detector. *Li, H.*, +, *TNS Nov. 2021 2624-2629*

Data Acquisition System for Underwater *In Situ* Gamma Radiation Spectrometer. *Yuan, J.*, +, *TNS Aug. 2021 1849-1854*

The GossipGUI Framework for Control and Benchmarking of Readout Electronics Front-Ends. *Adamczewski-Musch, J.*, +, *TNS Aug. 2021 2074-2080*

Versatile Configuration and Control Framework for Real-Time Data Acquisition Systems. *Karcher, N.*, +, *TNS Aug. 2021 1899-1906*

White Rabbit Time Synchronization for Radiation Detector Readout Electronics. *Hennig, W.*, +, *TNS Aug. 2021 2059-2065*

Proton accelerators

Development of Next-Generation Timing System for the Japan Proton Accelerator Research Complex. *Tamura, F.*, +, *TNS Aug. 2021 2043-2050*

Proton beams

LLRF Controller for High Current Cyclotron-Based BNCT System. *Fu, X.*, +, *TNS Oct. 2021 2452-2458*

Performance Evaluation of the TOF-Wall Detector of the FOOT Experiment. *Morrocchi, M.*, +, *TNS May 2021 1161-1168*

Proton effects

Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K.*, +, *TNS June 2021 1319-1324*

Assessment of Proton Direct Ionization for the Radiation Hardness Assurance of Deep Submicron SRAMs Used in Space Applications. *Coronetti, A.*, +, *TNS May 2021 937-948*

Electrical Measurement of Cell-to-Cell Variation of Critical Charge in SRAM and Sensitivity to Single-Event Upsets by Low-Energy Protons. *Cannon, J.M.*, +, *TNS May 2021 815-822*

Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D.*, +, *TNS May 2021 716-723*

Hydrogen-Related Recovery Effect of AlGaIn/GaN High-Electron-Mobility Transistors Irradiated by High-Fluence Protons. *Chen, Z.*, +, *TNS Feb. 2021 118-123*

Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. *Esposito, M.G.*, +, *TNS May 2021 724-732*

LET and Range Characteristics of Proton Recoil Ions in Gallium Nitride (GaN). *Osheroff, J.M.*, +, *TNS May 2021 597-602*

Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X.*, +, *TNS Jan. 2021 27-35*

TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T.*, +, *TNS May 2021 603-610*

Proton-proton inclusive interactions

Iterative Retina for High Track Multiplicity in a Barrel-Shaped Tracker and High Magnetic Field. *Deng, W.*, +, *TNS Aug. 2021 1937-1943*

Protons

Combined Effects of Proton Irradiation and Forward Gate-Bias Stress on the Interface Traps in AlGaIn/GaN Heterostructure. *Zhu, T.*, +, *TNS Nov. 2021 2616-2623*

Prototypes

Characterization of a Small-Scale Prototype Detector With Wide Dynamic Range for Time-Resolved High-Energy X-Ray Applications. *Shanks, K.S.*, +, *TNS Dec. 2021 2753-2761*

Polarimetry With a Multilayer CdTe Prototype for Soft Gamma-Ray Astrophysics. *Moita, M.*, +, *TNS Nov. 2021 2655-2660*

Public domain software

OpenIPMC: A Free and Open-Source Intelligent Platform Management Controller Software. *Calligaris, L.*, +, *TNS Aug. 2021 2105-2112*

Pulse generators

Electrical Analysis Method for Gamma-Ray Imaging System Based on Resistive Network Readout. *Jeon, S.*, +, *TNS Sept. 2021 2392-2399*

Pulse measurement

On-Orbit Pile-Up Detection and Digital Pulse Shape Measurement Results in the Radiation Telescope. *Ueno, H.*, +, *TNS Aug. 2021 1764-1771*

Python

Safe and Reusable Approach for Pin-to-Port Assignment in Multiboard FPGA Data Acquisition and Control Designs. *Kruszewski, M.*, +, *TNS June 2021 1186-1193*

Q**Q factor**

Investigations Into X-Band Dielectric Assist Accelerating Structures for Future Linear Accelerators. *Wei, Y.*, +, *TNS May 2021 1062-1071*

Online Detuning Computation and Quench Detection for Superconducting Resonators. *Bellandi, A.*, +, *TNS April 2021 385-393*

Quality assurance

Characterization of Radiation-Resistant Multimode Optical Fibers for Large-Scale Procurement. *Blanc, J.*, +, *TNS July 2021 1407-1413*

Quality control

Characterization of Radiation-Resistant Multimode Optical Fibers for Large-Scale Procurement. *Blanc, J.*, +, *TNS July 2021 1407-1413*

Quantization (signal)

How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F.*, +, *TNS May 2021 865-872*

Quantum chromodynamics

Design and Beam Test Results for the 2-D Projective sPHENIX Electromagnetic Calorimeter Prototype. *Aidala, C.A.*, +, *TNS Feb. 2021 173-181*

Quark-gluon plasma

Design and Beam Test Results for the 2-D Projective sPHENIX Electromagnetic Calorimeter Prototype. *Aidala, C.A.*, +, *TNS Feb. 2021 173-181*

R**Radiation belts**

Simulations of Internal Charging Effects of Artificial Radiation Belt on Dielectric Material. *Zuo, Y.*, +, *TNS May 2021 1120-1128*

Radiation detection

Considerations for Training an Artificial Neural Network for Particle Type Identification. *Fobar, D.*, +, *TNS Sept. 2021 2350-2357*

Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*

Radiation detectors

Hi'Beam-S: A Monolithic Silicon Pixel Sensor-Based Prototype Particle Tracking System for HIAF. *Yang, H.*, +, *TNS Dec. 2021 2794-2800*

ORION, a Multichip Readout Electronics for Satellite Wide Energy Range X-/γ-Ray Imaging Spectroscopy: Design and Characterization of the Analog Section. *Mele, F.*, +, *TNS Dec. 2021 2801-2809*

Real-Time Particle Identification in Liquid Xenon. *Nicolo, D.*, +, *TNS Nov. 2021 2630-2636*

SiC p+n Junction Diodes Toward Beam Monitor Applications. *Kishishita, T.*, +, *TNS Dec. 2021 2787-2793*

Radiation effects

Aging Effects and Latent Interface-Trap Buildup in MOS Transistors. *Ding, J.*, +, *TNS Dec. 2021 2724-2735*

- Charge Trapping and Transconductance Degradation in Irradiated 3-D Sequentially Integrated FDSOI MOSFETs. *Toguchi, S.*, +, *TNS May 2021 707-715*
- Citation Impact of Outstanding Conference Papers of the IEEE Nuclear and Space Radiation Effects Conference. *Fleetwood, D.M.*, *TNS March 2021 325-337*
- Combined Effects of Proton Irradiation and Forward Gate-Bias Stress on the Interface Traps in AlGaN/GaN Heterostructure. *Zhu, T.*, +, *TNS Nov. 2021 2616-2623*
- Combined Temperature and Radiation Effects on the Gain of Er- and Er-Yb-Doped Fiber Amplifiers. *Aubry, M.*, +, *TNS May 2021 793-800*
- Comments by the Editors. *Fleetwood, D.*, +, *TNS Aug. 2021 1531*
- Correlations Between Panoramic Imagery and Gamma-Ray Background in an Urban Area. *Bandstra, M.S.*, +, *TNS Dec. 2021 2818-2834*
- Development of TID Hardness Assurance Methodologies to Capitalize on Statistical Radiation Environment Models. *Ladbury, R.*, +, *TNS Aug. 2021 1736-1745*
- Effects of Bias and Temperature on the Dose-Rate Sensitivity of 65-nm CMOS Transistors. *Borghello, G.*, +, *TNS May 2021 573-580*
- Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D.*, +, *TNS May 2021 716-723*
- Impacts of Through-Silicon Vias on Total-Ionizing-Dose Effects and Low-Frequency Noise in FinFETs. *Li, K.*, +, *TNS May 2021 740-747*
- Microprocessor Error Diagnosis by Trace Monitoring Under Laser Testing. *Pena-Fernandez, M.*, +, *TNS Aug. 2021 1651-1659*
- Neutron-Induced Pulswidth Distribution of Logic Gates Characterized Using a Pulse Shrinking Chain-Based Test Structure. *Pande, N.*, +, *TNS Dec. 2021 2736-2747*
- Operating Temperature Range of Phosphorous-Doped Optical Fiber Dosimeters Exploiting Infrared Radiation-Induced Attenuation. *Morana, A.*, +, *TNS May 2021 906-912*
- Photobleaching Effect on Infrared Radiation-Induced Attenuation of Germanosilicate Optical Fibers at MGy Dose Levels. *Campanella, C.*, +, *TNS Aug. 2021 1688-1693*
- Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*
- Simulations of Internal Charging Effects of Artificial Radiation Belt on Dielectric Material. *Zuo, Y.*, +, *TNS May 2021 1120-1128*
- Single-Event Effect Responses of Integrated Planar Inductors in 65-nm CMOS. *Biereigel, S.*, +, *TNS Nov. 2021 2587-2597*
- Special NSREC 2020 Issue of the IEEE Transactions on Nuclear Science Editor Comments. *Fleetwood, D.*, +, *TNS May 2021 492*
- Total Ionizing Dose Responses of 22-nm FDSOI and 14-nm Bulk FinFET Charge-Trap Transistors. *Brewer, R.M.*, +, *TNS May 2021 677-686*
- Ultra-High Total Ionizing Dose Effects on MOSFETs for Analog Applications. *Dewitte, H.*, +, *TNS May 2021 697-706*
- Radiation hardening (electronics)**
- 0.1–10 MeV Neutron Soft Error Rate in Accelerator and Atmospheric Environments. *Cecchetto, M.*, +, *TNS May 2021 873-883*
- A Body-Biasing Technique for Single-Event Transient Mitigation in 28-nm Bulk CMOS Process. *Liu, J.*, +, *TNS Dec. 2021 2717-2723*
- A Charge Collection Equivalent Method for Laser Simulation of Dose Rate Effects With Improved Performance. *Tang, G.*, +, *TNS June 2021 1235-1243*
- A Comprehensive Comparison Between Design for Testability Techniques for Total Dose Testing of Flash-Based FPGAs. *Ibrahim, M.A.*, +, *TNS Aug. 2021 2232-2238*
- A Heavy-Ion Beam Monitor Based on 3-D NAND Flash Memories. *Gerardin, S.*, +, *TNS May 2021 884-889*
- A Switched Capacitor Waveform Digitizing ASIC at Cryogenic Temperature for HPGc Detectors. *Liu, F.*, +, *TNS Aug. 2021 2315-2322*
- A System-Level Modeling Approach for Simulating Radiation Effects in Successive-Approximation Analog-to-Digital Converters. *Rony, M.W.*, +, *TNS July 2021 1465-1472*
- A Track-Structure-Based Approach to Upset-Rate Calculations Using the Katz Model. *Hansen, D.L.*, *TNS Aug. 2021 1633-1641*
- Analysis and Mitigation of Single-Event Gate Rupture in VDMOS With Termination Structure. *Chen, Z.*, +, *TNS June 2021 1272-1278*
- Analysis of Bipolar Integrated Circuit Degradation Mechanisms Against Combined TID–DD Effects. *Ferraro, R.*, +, *TNS Aug. 2021 1585-1593*
- Analysis of Ion-Induced SEFI and SEL Phenomena in 90 nm NOR Flash Memory. *Ju, A.*, +, *TNS Oct. 2021 2508-2515*
- Analysis of SEGR in Silicon Planar Gate Super-Junction Power MOSFETs. *Muthuseenu, K.*, +, *TNS May 2021 611-616*
- Analysis of Single-Event Transients (SETs) Using Machine Learning (ML) and Ionizing Radiation Effects Spectroscopy (IRES). *Loveless, T.D.*, +, *TNS Aug. 2021 1600-1606*
- Assessment of Proton Direct Ionization for the Radiation Hardness Assurance of Deep Submicron SRAMs Used in Space Applications. *Coronetti, A.*, +, *TNS May 2021 937-948*
- Backside Laser Testing of Single-Event Effects in GaN-on-Si Power HEMTs. *Ngom, C.*, +, *TNS Aug. 2021 1642-1650*
- Characterizing Energetic Dependence of Low-Energy Neutron-Induced SEU and MCU and Its Influence on Estimation of Terrestrial SER in 65-nm Bulk SRAM. *Liao, W.*, +, *TNS June 2021 1228-1234*
- Comments by the Editors. *Fleetwood, D.*, +, *TNS Aug. 2021 1531*
- Comparison of Single-Event Transients in an Epitaxial Silicon Diode Resulting From Heavy-Ion-, Focused X-Ray-, and Pulsed Laser-Induced Charge Generation. *Ryder, K.L.*, +, *TNS May 2021 626-633*
- Dependence of Temperature and Back-Gate Bias on Single-Event Upset Induced by Heavy Ion in 0.2- μ m DSOI CMOS Technology. *Wang, Y.*, +, *TNS Aug. 2021 1660-1667*
- Depth Dependence of Threshold Voltage Shift in 3-D Flash Memories Exposed to X-Rays. *Bagatin, M.*, +, *TNS May 2021 659-664*
- Design and Verification of a 6.25 GHz LC-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. *Monda, D.*, +, *TNS Oct. 2021 2524-2532*
- Design-Stage Hardening of 65-nm CMOS Standard Cells Against Multiple Events. *Balbekov, A.O.*, +, *TNS Aug. 2021 1712-1718*
- Developing Benchmarks for Radiation Testing of Microcontroller Arithmetic Units Using ATPG. *Gnawali, K.P.*, +, *TNS May 2021 857-864*
- Development of TID Hardness Assurance Methodologies to Capitalize on Statistical Radiation Environment Models. *Ladbury, R.*, +, *TNS Aug. 2021 1736-1745*
- Effect of Cell Placement on Single-Event Transient Pulse in a Bulk FinFET Technology. *Huang, P.*, +, *TNS May 2021 1103-1110*
- Effects of Breakdown Voltage on Single-Event Burnout Tolerance of High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS July 2021 1430-1435*
- Effects of Ionization and Displacement Damage in AlGaN/GaN HEMT Devices Caused by Various Heavy Ions. *Wan, P.*, +, *TNS June 2021 1265-1271*
- Electrical Measurement of Cell-to-Cell Variation of Critical Charge in SRAM and Sensitivity to Single-Event Upsets by Low-Energy Protons. *Cannon, J.M.*, +, *TNS May 2021 815-822*
- Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D.*, +, *TNS May 2021 716-723*
- Emulating Radiation-Induced Multicell Upset Patterns in SRAM FPGAs With Fault Injection. *Perez-Celis, A.*, +, *TNS Aug. 2021 1594-1599*
- Evaluating and Mitigating Neutrons Effects on COTS EdgeAI Accelerators. *Blower, S.*, +, *TNS Aug. 2021 1719-1726*
- Evaluating Architectural, Redundancy, and Implementation Strategies for Radiation Hardening of FinFET Integrated Circuits. *Pagliarini, S.*, +, *TNS May 2021 1045-1053*
- Evaluation of the Radiation Hardness of Photodiodes in 180-nm CMOS Technology for Medical Applications. *Segmanovic, F.*, +, *TNS Sept. 2021 2367-2374*
- Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies. *Privat, A.*, +, *TNS May 2021 671-676*
- Fast-Transient Radiation-Hardened Low-Dropout Voltage Regulator for Space Applications. *Fan, H.*, +, *TNS May 2021 1094-1102*
- Frame-Level Intermodular Configuration Scrubbing of On-Detector FPGAs for the ARICH at Belle II. *Giordano, R.*, +, *TNS Dec. 2021 2810-2817*
- Gamma-Ray-Induced Error Pattern Analysis for MLC 3-D NAND Flash Memories. *Surendranathan, U.*, +, *TNS May 2021 733-739*

- Heavy-Ion Testing Method and Results of Normally OFF GaN-Based High-Electron-Mobility Transistor. *Sauveplane, J.*, +, *TNS Oct. 2021 2488-2495*
- How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F.*, +, *TNS May 2021 865-872*
- Identifying Radiation-Induced Micro-SEIs in SRAM FPGAs. *Perez-Celis, A.*, +, *TNS Oct. 2021 2480-2487*
- Impact of Single-Event Upsets on Convolutional Neural Networks in Xilinx Zynq FPGAs. *Wang, H.*, +, *TNS April 2021 394-401*
- Impact of Surface Recombination on Single-Event Charge Collection in an SOI Technology. *Tonigan, A.M.*, +, *TNS March 2021 305-311*
- Impact of the Bitcell Topology on the Multiple-Cell Upsets Observed in VLSI Nanoscale SRAMs. *Clemente, J.A.*, +, *TNS Sept. 2021 2383-2391*
- Impact of TID on Within-Wafer Variability of Radiation-Hardened SOI Wafers. *Zheng, Q.*, +, *TNS July 2021 1423-1429*
- Influence of Buried Oxide Si⁺ Implantation on TID and NBTI Effects for PDSOI MOSFETs. *Peng, C.*, +, *TNS Feb. 2021 156-164*
- Influence of Supply Voltage and Body Biasing on Single-Event Upsets and Single-Event Transients in UTBB FD-SOI. *de Boissac, C.L.*, +, *TNS May 2021 850-856*
- Intrinsic Vulnerability to Soft Errors and a Mitigation Technique by Layout Optimization on DICE Flip Flops in a 65-nm Bulk Process. *Mori, F.*, +, *TNS Aug. 2021 1727-1735*
- Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. *Espósito, M.G.*, +, *TNS May 2021 724-732*
- Investigation of Buried-Well Potential Perturbation Effects on SEU in SOI DICE-Based Flip-Flop Under Proton Irradiation. *Sakamoto, K.*, +, *TNS June 2021 1222-1227*
- Investigation of Radiation Hardening by Back-Channel Adjustment in PDSOI MOSFETs. *Liu, C.*, +, *TNS Nov. 2021 2609-2615*
- Investigations on Spectral Photon Radiation Sources to Perform TID Experiments in Micro- and Nano-Electronic Devices. *Gaillardin, M.*, +, *TNS May 2021 928-936*
- Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators. *Xiao, T.P.*, +, *TNS May 2021 762-769*
- LET and Range Characteristics of Proton Recoil Ions in Gallium Nitride (GaN). *Osheroff, J.M.*, +, *TNS May 2021 597-602*
- Low and Medium Earth-Orbit Error Rates Using Design-of-Experiments and Monte-Carlo Methods. *Hansen, D.L.*, +, *TNS May 2021 642-650*
- Measurement and Evaluation of the Within-Wafer TID Response Variability on BOX Layer of SOI Technology. *Zheng, Q.*, +, *TNS Oct. 2021 2516-2523*
- Modeling COTS System TID Response With Monte Carlo Sampling and Transistor Swapping Experiments. *Smith, M.B.*, +, *TNS May 2021 1008-1013*
- Modeling the Ionization Damage on Excess Base Current in p-n-p BJTs for Circuit-Level Simulation. *Li, L.*, +, *TNS Aug. 2021 2220-2231*
- Monitoring of Particle Count Rate and LET Variations With Pulse Stretching Inverters. *Andjelkovic, M.*, +, *TNS Aug. 2021 1772-1781*
- Multiscale System Modeling of Single-Event-Induced Faults in Advanced Node Processors. *Cannon, M.*, +, *TNS May 2021 980-990*
- Muon-Induced Single-Event Upsets in 20-nm SRAMs: Comparative Characterization With Neutrons and Alpha Particles. *Kato, T.*, +, *TNS July 2021 1436-1444*
- Neutron Radiation Testing of a TMR VexRiscv Soft Processor on SRAM-Based FPGAs. *Wilson, A.E.*, +, *TNS May 2021 1054-1060*
- Neutron-Induced Failure Dependence on Reverse Gate Voltage for SiC Power MOSFETs in Atmospheric Environment. *Niskanen, K.*, +, *TNS Aug. 2021 1623-1632*
- Observation of Low-Energy Proton Direct Ionization in a 72-Layer 3-D NAND Flash Memory. *Wilcox, E.P.*, +, *TNS May 2021 835-841*
- Partial TMR for Improving the Soft Error Reliability of SRAM-Based FPGA Designs. *Keller, A.M.*, +, *TNS May 2021 1023-1031*
- Radiation Effects in a Post-Moore World. *Fleetwood, D.M.*, *TNS May 2021 509-545*
- Radiation Effects in Advanced and Emerging Nonvolatile Memories. *Mari-nella, M.J.*, *TNS May 2021 546-572*
- Radiation Hardness Assurance Through System-Level Testing: Risk Acceptance, Facility Requirements, Test Methodology, and Data Exploitation. *Coronetti, A.*, +, *TNS May 2021 958-969*
- Radiation Tolerance of Online Trigger System for COMET Phase-I. *Dekkers, S.*, +, *TNS Aug. 2021 2020-2027*
- Radiation-Hardened Cortex-R4F System-on-Chip Prototype With Total Ionizing Dose Dynamic Compensation in 28-nm FD-SOI. *Abouzeid, F.*, +, *TNS May 2021 1040-1044*
- Radiation-Induced Error Mitigation by Read-Retry Technique for MLC 3-D NAND Flash Memory. *Kumari, P.*, +, *TNS May 2021 1032-1039*
- Role of Electron-Induced Coulomb Interactions to the Total SEU Rate During Earth and JUICE Missions. *Caron, P.*, +, *TNS Aug. 2021 1607-1612*
- Scaling Trends of Digital Single-Event Effects: A Survey of SEU and SET Parameters and Comparison With Transistor Performance. *Kobayashi, D.*, *TNS Feb. 2021 124-148*
- SEU Mechanisms in Spintronic Devices: Critical Parameters and Basic Effects. *Coi, O.*, +, *TNS Aug. 2021 1533-1541*
- Simulation of Pulsed-Laser-Induced Testing in Microelectronic Devices. *Ryder, L.D.*, +, *TNS Oct. 2021 2496-2507*
- Simultaneous Single-Event Transient (SET) Observation on LM139A Wired-and Comparator Circuit. *Morand, S.*, +, *TNS June 2021 1279-1285*
- Single-Event Effects Characterization of the Programmable Logic of Xilinx Zynq-7000 FPGA Using Very/Ultra High-Energy Heavy Ions. *Vlagkoulis, V.*, +, *TNS Jan. 2021 36-45*
- Single-Event Latchup in a 7-nm Bulk FinFET Technology. *Ball, D.R.*, +, *TNS May 2021 830-834*
- Single-Event Response of 22-nm Fully Depleted Silicon-on-Insulator Static Random Access Memory. *Casey, M.C.*, +, *TNS April 2021 402-409*
- Single-Event Transient Case Study for System-Level Radiation Effects Analysis. *Campola, M.J.*, +, *TNS May 2021 1002-1007*
- Single-Event Transient Response of Vertical and Lateral Waveguide-Integrated Germanium Photodiodes. *Ryder, L.D.*, +, *TNS May 2021 801-806*
- Single-Event Transient Space Characterizations in 28-nm UTBB SOI Technologies and Below. *de Boissac, C.L.*, +, *TNS Jan. 2021 21-26*
- Single-Event Upsets in a 7-nm Bulk FinFET Technology With Analysis of Threshold Voltage Dependence. *D'Amico, J.V.*, +, *TNS May 2021 823-829*
- Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS. *Wang, J.*, +, *TNS May 2021 913-920*
- Supply Voltage Dependence of Ring Oscillator Frequencies for Total Ionizing Dose Exposures for 7-nm Bulk FinFET Technology. *Xiong, Y.*, +, *TNS Aug. 2021 1579-1584*
- The Influence of Ion Track Characteristics on Single-Event Upsets and Multiple-Cell Upsets in Nanometer SRAM. *Luo, Y.*, +, *TNS May 2021 1111-1119*
- Threats to Resiliency of Redundant Systems Due to Destructive SEEs. *Lad-bury, R.*, +, *TNS May 2021 970-979*
- TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T.*, +, *TNS May 2021 603-610*
- TID and Heavy-Ion Performance of an RHBD Multichannel Digitizer in 180-nm CMOS. *Quilligan, G.*, +, *TNS July 2021 1414-1422*
- TID Degradation Mechanisms in 16-nm Bulk FinFETs Irradiated to Ultra-high Doses. *Ma, T.*, +, *TNS Aug. 2021 1571-1578*
- TID Effects Induced by ARACOR, ⁶⁰Co, and ORIATRON Photon Sources in MOS Devices: Impact of Geometry and Materials. *Lambert, D.*, +, *TNS May 2021 991-1001*
- TID Response and Radiation-Enhanced Hot-Carrier Degradation in 65-nm nMOSFETs: Concerns on the Layout-Dependent Effects. *Ren, Z.*, +, *TNS Aug. 2021 1565-1570*
- Total Ionizing Dose Effects on Multistate HfO_x-Based RRAM Synaptic Array. *Han, X.*, +, *TNS May 2021 756-761*
- Total Ionizing Dose Effects on Physical Unclonable Function From NAND Flash Memory. *Sakib, S.*, +, *TNS July 2021 1445-1453*
- Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M.*, +, *TNS May 2021 687-696*
- Updates on Testing Microprocessors Effectively. *Quinn, H.*, +, *TNS May 2021 842-849*
- Variability in Total-Ionizing-Dose Response of Fourth-Generation SiGe HBTs. *Teng, J.W.*, +, *TNS May 2021 949-957*

Radiation imaging

Immersive Operation of a Semi-Autonomous Aerial Platform for Detecting and Mapping Radiation. *Dayani, P., +, TNS Dec. 2021 2702-2710*

Radiation monitoring

A New Technique Based on Convolutional Neural Networks to Measure the Energy of Protons and Electrons With a Single Timepix Detector. *Ruffenach, M., +, TNS Aug. 2021 1746-1753*

Data Acquisition System for Underwater *In Situ* Gamma Radiation Spectrometer. *Yuan, J., +, TNS Aug. 2021 1849-1854*

Simulation Study on the Effect of Constant Hole Length of Curved Diverging Collimators for Radiation Monitoring Systems. *Cha, H., +, TNS May 2021 1135-1143*

Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS. *Wang, J., +, TNS May 2021 913-920*

Radiation protection

The FragmentatiOn Of Target (FOOT) Experiment and Its DAQ System. *Biondi, S., TNS Oct. 2021 2464-2471*

Radiation therapy

Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K., +, TNS June 2021 1319-1324*

Hi'Beam-A: A Pixelated Beam Monitor for the Accelerator of a Heavy-Ion Therapy Facility. *Zhang, H., +, TNS Aug. 2021 2081-2087*

High-Current Light-Ion Cyclotron for Applications in Nuclear Security and Radioisotope Production. *Johnstone, C., +, TNS May 2021 1072-1082*

Performance Evaluation of the TOF-Wall Detector of the FOOT Experiment. *Morrocchi, M., +, TNS May 2021 1161-1168*

The FragmentatiOn Of Target (FOOT) Experiment and Its DAQ System. *Biondi, S., TNS Oct. 2021 2464-2471*

Radio equipment

NOAA Image Data Acquisition to Determine Soil Moisture in Arequipa, Perú. *Argume, A., +, TNS Aug. 2021 1933-1936*

Radio transceivers

A Generic Streaming Software Platform Design for High-Energy Physics Data Acquisition Systems. *Wang, T., +, TNS Feb. 2021 101-109*

Radioactive materials

Improved Gamma-Ray Point Source Quantification in Three Dimensions by Modeling Attenuation in the Scene. *Bandstra, M.S., +, TNS Nov. 2021 2637-2646*

Radioactive sources

Application of Markov Chain Monte Carlo Methods for Uncertainty Quantification in Inverse Transport Problems. *Bledsoe, K.C., +, TNS Aug. 2021 2210-2219*

Evaluation of Timepix3 Si and CdTe Hybrid-Pixel Detectors' Spectrometric Performances on X- and Gamma-Rays. *Amoyal, G., +, TNS Feb. 2021 229-235*

Radioactive waste storage

Bayesian Approach for Multigamma Radionuclide Quantification Applied on Weakly Attenuating Nuclear Waste Drums. *Clement, A., +, TNS Sept. 2021 2342-2349*

Radioactivity measurement

A New DCC Software for $4\pi\beta(\text{LS}) - \gamma$ Coincidence Counting. *Zhong, K., +, TNS Aug. 2021 1920-1926*

Radiography

Performances of C-BORD's Tagged Neutron Inspection System for Explosives and Illicit Drugs Detection in Cargo Containers. *Sardet, A., +, TNS March 2021 346-353*

Radioisotope imaging

Double-Photon Emission Imaging With High-Resolution Si/CdTe Compton Cameras. *Orita, T., +, TNS Aug. 2021 2279-2285*

Radioisotopes

A New DCC Software for $4\pi\beta(\text{LS}) - \gamma$ Coincidence Counting. *Zhong, K., +, TNS Aug. 2021 1920-1926*

Application of a Simple, Spiking, Locally Competitive Algorithm to Radionuclide Identification. *Carson, M., +, TNS March 2021 292-304*

Double-Photon Emission Imaging With High-Resolution Si/CdTe Compton Cameras. *Orita, T., +, TNS Aug. 2021 2279-2285*

High-Current Light-Ion Cyclotron for Applications in Nuclear Security and Radioisotope Production. *Johnstone, C., +, TNS May 2021 1072-1082*

Preprocessing Energy Intervals on Spectrum for Real-Time Radionuclide Identification. *Kwon, I., +, TNS Aug. 2021 2202-2209*

RAID

Data-Taking Network for COMET Phase-I. *Igarashi, Y., +, TNS Aug. 2021 1884-1890*

Raman spectra

Influence of Hydrogen Treatment on Electrical Properties of Detector-Grade CdMnTe:In Crystals. *Yu, P., +, TNS April 2021 458-462*

Random access memory

Ultralow Power System-on-Chip SRAM Characterization by Alpha and Neutron Irradiation. *Haran, A., +, TNS Nov. 2021 2598-2608*

Random noise

Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M., +, TNS May 2021 687-696*

Random-access storage

Experience and Performance of Persistent Memory for the DUNE Data Acquisition System. *Abud, A.A., +, TNS Aug. 2021 2159-2164*

Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators. *Xiao, T.P., +, TNS May 2021 762-769*

Radiation Tolerance of Online Trigger System for COMET Phase-I. *Dekkers, S., +, TNS Aug. 2021 2020-2027*

Ray tracing

Diagonal 4-in ZnO Nanowire Cold Cathode Flat-Panel X-Ray Source: Preparation and Projection Imaging Properties. *Wang, L., +, TNS March 2021 338-345*

Readout electronics

A 24-Channel Digitizer With a JESD204B-Compliant Serial Interface for High-Speed Detectors. *Grace, C.R., +, TNS April 2021 426-433*

A Custom Low-Noise Silicon Photodiode Detector Designed for Use With X-Ray Capillary Optics. *Sleator, C.C., +, TNS Aug. 2021 2249-2256*

A Development of a 40-Gb/s Readout Interface STARE for the AGATA Project. *Karkour, N., +, TNS Aug. 2021 2005-2011*

A Dual Module Parallel Readout System Based on 10 Gb TCP/IP Transmission for HEPS-BPIX Detector. *Li, H., +, TNS Nov. 2021 2624-2629*

A Highly Linear FPGA-Based TDC and a Low-Power Multichannel Readout ASIC With a Shared SAR ADC for SiPM Detectors. *Tang, Y., +, TNS Aug. 2021 2286-2293*

A Low-Power Time-to-Digital Converter for the CMS Endcap Timing Layer (ETL) Upgrade. *Zhang, W., +, TNS Aug. 2021 1984-1992*

A Revised Version of the ATLAS Tile Calorimeter Link Daughterboard for the HL-LHC. *Santurio, E.V., +, TNS Sept. 2021 2414-2420*

ALTAIR: A Low-Noise, Low-Power, High-Speed and Wide Dynamic Range ASIC for X- and γ -Ray Spectroscopy With CdTe/CdZnTe Pixel Detectors. *Macara, D., +, TNS Feb. 2021 182-188*

An FPGA-Based Trigger System With Online Track Recognition in COMET Phase-I. *Nakazawa, Y., +, TNS Aug. 2021 2028-2034*

Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K., +, TNS June 2021 1319-1324*

ATLAS Hardware-Based Endcap Muon Trigger for Future Upgrades. *Mino, Y., TNS Aug. 2021 2012-2019*

Automatic Test System of the Back-End Card for the JUNO Experiment. *Clerbaux, B., +, TNS Aug. 2021 2121-2126*

Bias Polarity Switching-Type TIBr X-Ray Imager. *Takagi, K., +, TNS Sept. 2021 2435-2439*

Carrier Lifetime and Mobility Characterization Using the DTU 3-D CZT Drift Strip Detector. *Owe, S.H., +, TNS Sept. 2021 2440-2446*

CentOS Linux for the ATLAS MUCTPI Upgrade. *Spiwoks, R., +, TNS Aug. 2021 2127-2131*

Cooling and Timing Tests of the ATLAS Fast TracKer VME Boards. *Sottocornola, S., +, TNS Aug. 2021 2051-2058*

Data Acquisition System for the COMPASS++/ AMBER Experiment. *Frolov, V., +, TNS Aug. 2021 1891-1898*

Data Acquisition System in the First Commissioning Run of the J-PARC E16 Experiment. *Takahashi, T., +, TNS Aug. 2021 1907-1911*

Design and Implementation of a Portable High-Performance Gamma-Ray Camera. *Zhu, B., +, TNS June 2021 1309-1318*

Design and Testing of the Front-End Electronics of WCDA in LHAASO. *Aharonian, F., +, TNS Aug. 2021 2257-2267*

- Design of the Compact Processing Module for the ATLAS Tile Calorimeter. *Carrio, F., TNS Aug. 2021 1944-1951*
- Development of Multichannel High Time Resolution Data Acquisition System for TOT-ASIC. *Sato, S., +, TNS Aug. 2021 1801-1806*
- Electrical Analysis Method for Gamma-Ray Imaging System Based on Resistive Network Readout. *Jeon, S., +, TNS Sept. 2021 2392-2399*
- Evaluation of Timepix3 Si and CdTe Hybrid-Pixel Detectors' Spectrometric Performances on X- and Gamma-Rays. *Amoyal, G., +, TNS Feb. 2021 229-235*
- FPGA-Based Real-Time Image Manipulation and Advanced Data Acquisition for 2-D-XRAY Detectors. *Mansour, W., +, TNS Aug. 2021 1927-1932*
- Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C., +, TNS June 2021 1244-1250*
- GAMMA: A 16-Channel Spectroscopic ASIC for SiPMs Readout With 84-dB Dynamic Range. *Buonanno, L., +, TNS Oct. 2021 2559-2572*
- Gigabit Ethernet Daisy Chain on FPGA for COMET Readout Electronics. *Hamada, E., +, TNS Aug. 2021 1968-1975*
- Hi'Beam-A: A Pixelated Beam Monitor for the Accelerator of a Heavy-Ion Therapy Facility. *Zhang, H., +, TNS Aug. 2021 2081-2087*
- High Time-Resolution Readout Integrated Circuit Using DLL for Portable Cosmic Ray Muon Detection. *Chen, S., +, TNS Aug. 2021 2268-2278*
- Initial Tests and Characterization of the Readout Electronics for the IXPE Mission. *Barbanera, M., +, TNS May 2021 1144-1151*
- Low-Noise Analog Channel for the Readout of the Si(Li) Detector of the GAPS Experiment. *Manghisoni, M., +, TNS Nov. 2021 2661-2669*
- MPV—Parallel Readout Architecture for the VME Data Acquisition System. *Baba, H., +, TNS Aug. 2021 1841-1848*
- New Software-Based Readout Driver for the ATLAS Experiment. *Kolos, S., +, TNS Aug. 2021 1811-1817*
- Operational Experience and Evolution of the ATLAS Tile Hadronic Calorimeter Read-Out Drivers. *Valero, A., TNS Aug. 2021 1807-1810*
- ORION, a Multichip Readout Electronics for Satellite Wide Energy Range X-/γ-Ray Imaging Spectroscopy: Design and Characterization of the Analog Section. *Mele, F., +, TNS Dec. 2021 2801-2809*
- PCI-Express Based High-Speed Readout for the Belle II DAQ Upgrade. *Zhou, Q.D., +, TNS Aug. 2021 1818-1825*
- Performance of the Data-Handling Hub Readout System for the Belle II Pixel Detector. *Huber, S., +, TNS Aug. 2021 1961-1967*
- Performance of the High-Level Trigger System at CMS in LHC Run-2. *Choudhury, S., TNS Aug. 2021 2035-2042*
- Performance of the Unified Readout System of Belle II. *Nakao, M., +, TNS Aug. 2021 1826-1832*
- Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X., +, TNS Jan. 2021 27-35*
- Prototype Data Acquisition and Slow Control Systems for the Mu2e Experiment. *Gioiosa, A., +, TNS Aug. 2021 1862-1868*
- Readout Electronics Prototype of TOF Detectors in CEE of HIRFL. *Lu, J., +, TNS Aug. 2021 1976-1983*
- Readout Firmware of the Vertex Locator for LHCb Run 3 and Beyond. *Hennesy, K., +, TNS Oct. 2021 2472-2479*
- Row—Column Readout Method to Mitigate Radiographic-Image Blurring From Multipixel Events in a Coded-Aperture Imaging System. *Boo, J., +, TNS May 2021 1175-1183*
- The GossipGUI Framework for Control and Benchmarking of Readout Electronics Front-Ends. *Adamczewski-Musch, J., +, TNS Aug. 2021 2074-2080*
- The MiniSDD-Based 1-Mpixel Camera of the DSSC Project for the European XFEL. *Porro, M., +, TNS June 2021 1334-1350*
- The Mu3e Data Acquisition. *Augustin, H., +, TNS Aug. 2021 1833-1840*
- The ReadoutCard Userspace Driver for the New Alice O² Computing System. *Alexopoulos, K., +, TNS Aug. 2021 1876-1883*
- The Study of Calibration for the Hybrid Pixel Detector With Single Photon Counting in HEPS-BPIX. *Ding, Y., +, TNS Aug. 2021 2088-2095*
- Time Resolution of BC422 Plastic Scintillator Read Out by a SiPM. *Stoykov, A., +, TNS July 2021 1487-1494*
- White Rabbit Time Synchronization for Radiation Detector Readout Electronics. *Hennig, W., +, TNS Aug. 2021 2059-2065*
- X—Ray Spectroscopy With a CdTe Pixel Detector and SIRIO Preamplifier at Deep Submicrosecond Signal-Processing Time. *Sammartini, M., +, TNS Jan. 2021 70-75*
- Real-time systems**
- A 2-D Clustering Algorithm for Data Reconstruction in Vertex Detector of ILC. *Zhao, R., +, TNS Nov. 2021 2647-2654*
- FPGA-Based Real-Time Data Acquisition for Ultrafast X-Ray Computed Tomography. *Windisch, D., +, TNS Dec. 2021 2779-2786*
- Immersive Operation of a Semi-Autonomous Aerial Platform for Detecting and Mapping Radiation. *Dayani, P., +, TNS Dec. 2021 2702-2710*
- Integrated Real-Time Supervisory Management for Off-Normal-Event Handling and Feedback Control of Tokamak Plasmas. *Vu, T., +, TNS Aug. 2021 1855-1861*
- Mössbauer Spectrometer With Advanced Modulation of Gamma Ray Energy Utilizing Real-Time Industrial Computer. *Kohout, P., +, TNS Aug. 2021 1869-1875*
- Real-Time Particle Identification in Liquid Xenon. *Nicolo, D., +, TNS Nov. 2021 2630-2636*
- Versatile Configuration and Control Framework for Real-Time Data Acquisition Systems. *Karcher, N., +, TNS Aug. 2021 1899-1906*
- Reconstruction algorithms**
- A New CL Reconstruction Method Under the Displaced Sample Stage Scanning Mode. *Zhang, Y., +, TNS Nov. 2021 2574-2586*
- Reduced instruction set computing**
- A Zynq-Based Flexible ADC Architecture Combining Real-Time Data Streaming and Transient Recording. *Garola, A.R., +, TNS Feb. 2021 245-249*
- Redundancy**
- Evaluating and Mitigating Neutrons Effects on COTS EdgeAI Accelerators. *Blower, S., +, TNS Aug. 2021 1719-1726*
- Evaluating Architectural, Redundancy, and Implementation Strategies for Radiation Hardening of FinFET Integrated Circuits. *Pagliarini, S., +, TNS May 2021 1045-1053*
- Frame-Level Intermodular Configuration Scrubbing of On-Detector FPGAs for the ARICH at Belle II. *Giordano, R., +, TNS Dec. 2021 2810-2817*
- Investigating How Software Characteristics Impact the Effectiveness of Automated Software Fault Tolerance. *James, B., +, TNS May 2021 1014-1022*
- Reliability**
- Analyzing DUE Errors on GPUs With Neutron Irradiation Test and Fault Injection to Control Flow. *Ito, K., +, TNS Aug. 2021 1668-1674*
- Resins**
- Thermal Neutron Absorption in Printed Circuit Boards. *Platt, S.P., +, TNS April 2021 463-469*
- Variation of Permittivity and Dark Conductivity of Polyimide and FR4 With Electron Dose by Experiments. *Song, S., +, TNS Sept. 2021 2375-2382*
- Resistive RAM**
- Total Ionizing Dose Effects on Multistate HfO_x-Based RRAM Synaptic Array. *Han, X., +, TNS May 2021 756-761*
- Reversed field pinch**
- The Electronics Design of Real-Time Feedback Control System in KTX. *Song, S., +, TNS Aug. 2021 2066-2073*
- Ring oscillators**
- Supply Voltage Dependence of Ring Oscillator Frequencies for Total Ionizing Dose Exposures for 7-nm Bulk FinFET Technology. *Xiong, Y., +, TNS Aug. 2021 1579-1584*
- Ritter, James C.**
- In Memoriam James C. Ritter. *TNS May 2021 507*
- Robust control**
- L₁-Adaptive Robust Control Design for a Pressurized Water-Type Nuclear Power Plant. *Vajpayee, V., +, TNS July 2021 1381-1398*

S

Schottky barriers

Effect of Hydrogen on Radiation-Induced Displacement Damage in AlGaN/GaN HEMTs. *Wan, P.*, +, *TNS June 2021 1258-1264*

Effects of Breakdown Voltage on Single-Event Burnout Tolerance of High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS July 2021 1430-1435*

Schottky diodes

Effects of Breakdown Voltage on Single-Event Burnout Tolerance of High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS July 2021 1430-1435*

SiC p+n Junction Diodes Toward Beam Monitor Applications. *Kishishita, T.*, +, *TNS Dec. 2021 2787-2793*

Scintillation

Comparison of Photoluminescence and Scintillation Properties Between Lu₂O₃:Eu Single Crystal and Transparent Ceramic. *Haihang, Y.*, +, *TNS April 2021 477-482*

Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*

Electrical Analysis Method for Gamma-Ray Imaging System Based on Resistive Network Readout. *Jeon, S.*, +, *TNS Sept. 2021 2392-2399*

Improvement in Plastic Scintillator with Loading of BaFBr:Eu²⁺ Radioluminescence Phosphor. *Rajakrishna, K.*, +, *TNS June 2021 1286-1295*

Scintillation counters

Development of L-Bent Positron Detectors for μ SR Applications at China Spallation Neutron Source. *Pan, Z.*, +, *TNS Sept. 2021 2407-2413*

Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*

Performance Evaluation of the TOF-Wall Detector of the FOOT Experiment. *Morrocchi, M.*, +, *TNS May 2021 1161-1168*

Preliminary Study on the Timing Characteristics of a Fast SiPM for the TOF of the Beam Line in IHEP. *Yan, M.*, +, *TNS Aug. 2021 2096-2100*

ProtoDUNE-DP Light Acquisition and Calibration Software. *Belver, D.*, +, *TNS Sept. 2021 2334-2341*

Real-Time Signal Processing for Mitigating SiPM Dark Noise Effects in a Scintillating Neutron Detector. *Pritchard, K.*, +, *TNS July 2021 1519-1527*

Row-Column Readout Method to Mitigate Radiographic-Image Blurring From Multipixel Events in a Coded-Aperture Imaging System. *Boo, J.*, +, *TNS May 2021 1175-1183*

Value-Assigned Pulse Shape Discrimination for Neutron Detectors. *Teh, F.C.E.*, +, *TNS Aug. 2021 2294-2300*

Scintillators

Novel Model for Analysis and Optimization of Silicon Photomultiplier-Based Scintillation Systems. *Sommer, M.*, +, *TNS Dec. 2021 2771-2778*

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Correlations Between Panoramic Imagery and Gamma-Ray Background in an Urban Area. *Bandstra, M.S.*, +, *TNS Dec. 2021 2818-2834*

Selenium

Chopped Cold Neutron Beam Activation Analysis. *Turkoglu, D.J.*, +, *TNS July 2021 1505-1510*

Semiconductor counters

A New Technique Based on Convolutional Neural Networks to Measure the Energy of Protons and Electrons With a Single Timepix Detector. *Ruffenach, M.*, +, *TNS Aug. 2021 1746-1753*

ALTAIR: A Low-Noise, Low-Power, High-Speed and Wide Dynamic Range ASIC for X- and γ -Ray Spectroscopy With CdTe/CdZnTe Pixel Detectors. *Macera, D.*, +, *TNS Feb. 2021 182-188*

Bias Polarity Switching-Type TlBr X-Ray Imager. *Takagi, K.*, +, *TNS Sept. 2021 2435-2439*

Carrier Lifetime and Mobility Characterization Using the DTU 3-D CZT Drift Strip Detector. *Owe, S.H.*, +, *TNS Sept. 2021 2440-2446*

Growth of Cd_{0.9}Zn_{0.1}Te_{1-y}Se_y Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*

Hi-Beam-A: A Pixelated Beam Monitor for the Accelerator of a Heavy-Ion Therapy Facility. *Zhang, H.*, +, *TNS Aug. 2021 2081-2087*

Improvement on the Temporal Response of CZT γ -Ray Detector by Infrared Illumination. *Chen, X.*, +, *TNS Oct. 2021 2533-2538*

Mapping the Spatial Dependence of Charge-Collection Efficiency in Semiconductor Devices Using Pulsed-Laser Testing. *Hales, J.M.*, +, *TNS May 2021 617-625*

Performance of Larger-Volume 40 × 40 × 10- and 40 × 40 × 15-mm³ CdZnTe Detectors. *Zhu, Y.*, +, *TNS Feb. 2021 250-255*

Polaris-LAMP: Multi-Modal 3-D Image Reconstruction With a Commercial Gamma-Ray Imager. *Hecla, J.*, +, *TNS Oct. 2021 2539-2549*

Systematic Analysis of Reliability of Large-Area 4H-SiC Charged Particle Detector Under Harsh He Ion Irradiation. *Gao, R.*, +, *TNS May 2021 1169-1174*

The MiniSDD-Based 1-Mpixel Camera of the DSSC Project for the European XFEL. *Porro, M.*, +, *TNS June 2021 1334-1350*

The Mu3e Data Acquisition. *Augustin, H.*, +, *TNS Aug. 2021 1833-1840*

The Study of Calibration for the Hybrid Pixel Detector With Single Photon Counting in HEPs-BPIX. *Ding, Y.*, +, *TNS Aug. 2021 2088-2095*

The Timing Resolution of IHEP-NDL LGAD Sensors With Different Active Layer Thicknesses. *Li, M.*, +, *TNS Aug. 2021 2309-2314*

X- γ Ray Spectroscopy With a CdTe Pixel Detector and SIRIO Preamplifier at Deep Submicrosecond Signal-Processing Time. *Sammartini, M.*, +, *TNS Jan. 2021 70-75*

Semiconductor device breakdown

Effects of Breakdown Voltage on Single-Event Burnout Tolerance of High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS July 2021 1430-1435*

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Semiconductor device models

Analysis and Mitigation of Single-Event Gate Rupture in VDMOS With Termination Structure. *Chen, Z.*, +, *TNS June 2021 1272-1278*

Analysis of SEGR in Silicon Planar Gate Super-Junction Power MOSFETs. *Muthuseenu, K.*, +, *TNS May 2021 611-616*

Effects of Bias and Temperature on the Dose-Rate Sensitivity of 65-nm CMOS Transistors. *Borghello, G.*, +, *TNS May 2021 573-580*

Ion-Induced Mesoplasma Formation and Thermal Destruction in 4H-SiC Power MOSFET Devices. *McPherson, J.A.*, +, *TNS May 2021 651-658*

Mapping the Spatial Dependence of Charge-Collection Efficiency in Semiconductor Devices Using Pulsed-Laser Testing. *Hales, J.M.*, +, *TNS May 2021 617-625*

Modeling the Ionization Damage on Excess Base Current in p-n-p BJTs for Circuit-Level Simulation. *Li, L.*, +, *TNS Aug. 2021 2220-2231*

Relating Gain Degradation to Defects Production in Neutron-Irradiated 4H-SiC Transistors. *Dong, P.*, +, *TNS March 2021 312-317*

Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*

Single Event Burnout Hardening of Enhancement Mode HEMTs With Double Field Plates. *Zhen, Z.*, +, *TNS Sept. 2021 2358-2366*

Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs. *Rony, M.W.*, +, *TNS May 2021 807-814*

TID Effects Induced by ARACOR, ⁶⁰Co, and ORIATRON Photon Sources in MOS Devices: Impact of Geometry and Materials. *Lambert, D.*, +, *TNS May 2021 991-1001*

Semiconductor device noise

Impacts of Through-Silicon Vias on Total-Ionizing-Dose Effects and Low-Frequency Noise in FinFETs. *Li, K.*, +, *TNS May 2021 740-747*

Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M.*, +, *TNS May 2021 687-696*

Semiconductor device packaging

TID Effects Induced by ARACOR, ⁶⁰Co, and ORIATRON Photon Sources in MOS Devices: Impact of Geometry and Materials. *Lambert, D.*, +, *TNS May 2021 991-1001*

Semiconductor device reliability

Analysis and Mitigation of Single-Event Gate Rupture in VDMOS With Termination Structure. *Chen, Z.*, +, *TNS June 2021 1272-1278*

Heavy-Ion Testing Method and Results of Normally OFF GaN-Based High-Electron-Mobility Transistor. *Sauveplane, J.*, +, *TNS Oct. 2021 2488-2495*

Impact of Terrestrial Neutrons on the Reliability of SiC VD-MOSFET Technologies. *Martinella, C.*, +, *TNS May 2021 634-641*

- Influence of Buried Oxide Si⁺ Implantation on TID and NBTI Effects for PDSOI MOSFETs. *Peng, C.*, +, *TNS Feb. 2021 156-164*
- Ion-Induced Mesoplasma Formation and Thermal Destruction in 4H-SiC Power MOSFET Devices. *McPherson, J.A.*, +, *TNS May 2021 651-658*
- Neutron-Induced Failure Dependence on Reverse Gate Voltage for SiC Power MOSFETs in Atmospheric Environment. *Niskanen, K.*, +, *TNS Aug. 2021 1623-1632*
- Single-Event Latchup in a 7-nm Bulk FinFET Technology. *Ball, D.R.*, +, *TNS May 2021 830-834*
- Supply Voltage Dependence of Ring Oscillator Frequencies for Total Ionizing Dose Exposures for 7-nm Bulk FinFET Technology. *Xiong, Y.*, +, *TNS Aug. 2021 1579-1584*
- TID Response and Radiation-Enhanced Hot-Carrier Degradation in 65-nm nMOSFETs: Concerns on the Layout-Dependent Effects. *Ren, Z.*, +, *TNS Aug. 2021 1565-1570*
- Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M.*, +, *TNS May 2021 687-696*
- Semiconductor device testing**
- Backside Laser Testing of Single-Event Effects in GaN-on-Si Power HEMTs. *Ngom, C.*, +, *TNS Aug. 2021 1642-1650*
- Heavy-Ion Testing Method and Results of Normally OFF GaN-Based High-Electron-Mobility Transistor. *Sauveplane, J.*, +, *TNS Oct. 2021 2488-2495*
- Impact of Terrestrial Neutrons on the Reliability of SiC VD-MOSFET Technologies. *Martinella, C.*, +, *TNS May 2021 634-641*
- Investigations on Spectral Photon Radiation Sources to Perform TID Experiments in Micro- and Nano-Electronic Devices. *Gaillardin, M.*, +, *TNS May 2021 928-936*
- Neutron-Induced Failure Dependence on Reverse Gate Voltage for SiC Power MOSFETs in Atmospheric Environment. *Niskanen, K.*, +, *TNS Aug. 2021 1623-1632*
- Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*
- Semiconductor diodes**
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- Semiconductor doping**
- TID Degradation Mechanisms in 16-nm Bulk FinFETs Irradiated to Ultra-high Doses. *Ma, T.*, +, *TNS Aug. 2021 1571-1578*
- Semiconductor epitaxial layers**
- Comparison of Single-Event Transients in an Epitaxial Silicon Diode Resulting From Heavy-Ion-, Focused X-Ray-, and Pulsed Laser-Induced Charge Generation. *Ryder, K.L.*, +, *TNS May 2021 626-633*
- Defect and Impurity-Complex Depassivation During Electron-Beam Irradiation of GaAs. *Fleetwood, D.M.*, +, *TNS Aug. 2021 1548-1555*
- Semiconductor growth**
- Defect and Impurity-Complex Depassivation During Electron-Beam Irradiation of GaAs. *Fleetwood, D.M.*, +, *TNS Aug. 2021 1548-1555*
- Growth of Cd_{0.9}Zn_{0.1}Te_{1-y}Se_y Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*
- Influence of Hydrogen Treatment on Electrical Properties of Detector-Grade CdMnTe:In Crystals. *Yu, P.*, +, *TNS April 2021 458-462*
- Semiconductor junctions**
- Analysis of SEGR in Silicon Planar Gate Super-Junction Power MOSFETs. *Muthuseenu, K.*, +, *TNS May 2021 611-616*
- Semiconductor materials**
- Growth of Cd_{0.9}Zn_{0.1}Te_{1-y}Se_y Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*
- Semiconductor quantum wires**
- Diagonal 4-in ZnO Nanowire Cold Cathode Flat-Panel X-Ray Source: Preparation and Projection Imaging Properties. *Wang, L.*, +, *TNS March 2021 338-345*
- Semiconductor-insulator-semiconductor devices**
- Systematic Analysis of Reliability of Large-Area 4H-SiC Charged Particle Detector Under Harsh He Ion Irradiation. *Gao, R.*, +, *TNS May 2021 1169-1174*
- Semimagnetic semiconductors**
- Influence of Hydrogen Treatment on Electrical Properties of Detector-Grade CdMnTe:In Crystals. *Yu, P.*, +, *TNS April 2021 458-462*
- Sensor fusion**
- 3-D Object Tracking in Panoramic Video and LiDAR for Radiological Source-Object Attribution and Improved Source Detection. *Marshall, M.R.*, +, *TNS Feb. 2021 189-202*
- Sensors**
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- Correlations Between Panoramic Imagery and Gamma-Ray Background in an Urban Area. *Bandstra, M.S.*, +, *TNS Dec. 2021 2818-2834*
- SiC p+n Junction Diodes Toward Beam Monitor Applications. *Kishishita, T.*, +, *TNS Dec. 2021 2787-2793*
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- Shielding**
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- Multiobjective Optimization Shielding Design for Compact Accelerator-Driven Neutron Sources by Application of NSGA-II and MCNP. *Ma, B.*, +, *TNS Feb. 2021 110-117*
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- Shift registers**
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- Investigation of Buried-Well Potential Perturbation Effects on SEU in SOI DICE-Based Flip-Flop Under Proton Irradiation. *Sakamoto, K.*, +, *TNS June 2021 1222-1227*
- Signal detection**
- On-Orbit Pile-Up Detection and Digital Pulse Shape Measurement Results in the Radiation Telescope. *Ueno, H.*, +, *TNS Aug. 2021 1764-1771*
- Signal processing**
- TID and Heavy-Ion Performance of an RHBD Multichannel Digitizer in 180-nm CMOS. *Quilligan, G.*, +, *TNS July 2021 1414-1422*
- Signal resolution**
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- Signal sampling**
- FPGA Implementation of an NCO Based CDR for the JUNO Front-End Electronics. *Marini, F.*, +, *TNS Aug. 2021 1952-1960*
- Silicon**
- A Custom Low-Noise Silicon Photodiode Detector Designed for Use With X-Ray Capillary Optics. *Sleator, C.C.*, +, *TNS Aug. 2021 2249-2256*
- Acquiring and Modeling of Si Solar-Cell Transient Response to Pulsed X-Ray. *Pan, L.*, +, *TNS May 2021 1152-1160*
- Analysis of SEGR in Silicon Planar Gate Super-Junction Power MOSFETs. *Muthuseenu, K.*, +, *TNS May 2021 611-616*
- Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K.*, +, *TNS June 2021 1319-1324*
- Backside Laser Testing of Single-Event Effects in GaN-on-Si Power HEMTs. *Ngom, C.*, +, *TNS Aug. 2021 1642-1650*
- Charge Trapping and Transconductance Degradation in Irradiated 3-D Sequentially Integrated FDSOI MOSFETs. *Toguchi, S.*, +, *TNS May 2021 707-715*
- Comparison of Single-Event Transients in an Epitaxial Silicon Diode Resulting From Heavy-Ion-, Focused X-Ray-, and Pulsed Laser-Induced Charge Generation. *Ryder, K.L.*, +, *TNS May 2021 626-633*
- Double-Photon Emission Imaging With High-Resolution Si/CdTe Compton Cameras. *Orita, T.*, +, *TNS Aug. 2021 2279-2285*
- Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies. *Privat, A.*, +, *TNS May 2021 671-676*
- Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C.*, +, *TNS June 2021 1244-1250*

- Heavy-Ion Testing Method and Results of Normally OFF GaN-Based High-Electron-Mobility Transistor. *Sauveplane, J.*, +, *TNS Oct. 2021 2488-2495*
- Impact of TID on Within-Wafer Variability of Radiation-Hardened SOI Wafers. *Zheng, Q.*, +, *TNS July 2021 1423-1429*
- Influence of Buried Oxide Si⁺ Implantation on TID and NBTI Effects for PDSOI MOSFETs. *Peng, C.*, +, *TNS Feb. 2021 156-164*
- Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. *Esposito, M.G.*, +, *TNS May 2021 724-732*
- LET and Range Characteristics of Proton Recoil Ions in Gallium Nitride (GaN). *Osheroff, J.M.*, +, *TNS May 2021 597-602*
- Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. *Shawkat, M.S.A.*, +, *TNS March 2021 279-291*
- Multilayered Solid-State Neutron Sensor. *Rice, W.C.*, +, *TNS May 2021 890-896*
- Optical Single-Event Transients Induced in Integrated Silicon-Photonic Waveguides by Two-Photon Absorption. *Tzintzarov, G.N.*, +, *TNS May 2021 785-792*
- ORION, a Multichip Readout Electronics for Satellite Wide Energy Range X-/γ-Ray Imaging Spectroscopy: Design and Characterization of the Analog Section. *Mele, F.*, +, *TNS Dec. 2021 2801-2809*
- Proton Radiation Effects on HgCdTe Avalanche Photodiode Detectors. *Sun, X.*, +, *TNS Jan. 2021 27-35*
- Relating Gain Degradation to Defects Production in Neutron-Irradiated 4H-SiC Transistors. *Dong, P.*, +, *TNS March 2021 312-317*
- Role of Electron-Induced Coulomb Interactions to the Total SEU Rate During Earth and JUICE Missions. *Caron, P.*, +, *TNS Aug. 2021 1607-1612*
- Simulation and Modeling of Time-Resolved X-Ray Detector for the Saturn Accelerator. *Gao, X.*, +, *TNS July 2021 1454-1464*
- Simulation of Pulsed-Laser-Induced Testing in Microelectronic Devices. *Ryder, L.D.*, +, *TNS Oct. 2021 2496-2507*
- The MiniSDD-Based 1-Mpixel Camera of the DSSC Project for the European XFEL. *Porro, M.*, +, *TNS June 2021 1334-1350*
- The Study of Calibration for the Hybrid Pixel Detector With Single Photon Counting in HEPs-BPIX. *Ding, Y.*, +, *TNS Aug. 2021 2088-2095*
- TID and Heavy-Ion Performance of an RHBD Multichannel Digitizer in 180-nm CMOS. *Quilligan, G.*, +, *TNS July 2021 1414-1422*
- TID Degradation Mechanisms in 16-nm Bulk FinFETs Irradiated to Ultra-high Doses. *Ma, T.*, +, *TNS Aug. 2021 1571-1578*
- TID Response and Radiation-Enhanced Hot-Carrier Degradation in 65-nm nMOSFETs: Concerns on the Layout-Dependent Effects. *Ren, Z.*, +, *TNS Aug. 2021 1565-1570*
- Silicon carbide**
- SiC p+n Junction Diodes Toward Beam Monitor Applications. *Kishishita, T.*, +, *TNS Dec. 2021 2787-2793*
- Silicon compounds**
- Combined Temperature and Radiation Effects on the Gain of Er- and Er-Yb-Doped Fiber Amplifiers. *Aubry, M.*, +, *TNS May 2021 793-800*
- Effects of Breakdown Voltage on Single-Event Burnout Tolerance of High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS July 2021 1430-1435*
- Impact of Terrestrial Neutrons on the Reliability of SiC VD-MOSFET Technologies. *Martinella, C.*, +, *TNS May 2021 634-641*
- Impacts of Through-Silicon Vias on Total-Ionizing-Dose Effects and Low-Frequency Noise in FinFETs. *Li, K.*, +, *TNS May 2021 740-747*
- Investigation by Thermoluminescence of the Ionization and Annealing Processes in Irradiated Ge-Doped Silica Fiber Preform. *Gutilla, A.*, +, *TNS Aug. 2021 1556-1564*
- Ion-Induced Mesoplasma Formation and Thermal Destruction in 4H-SiC Power MOSFET Devices. *McPherson, J.A.*, +, *TNS May 2021 651-658*
- Modeling the Ionization Damage on Excess Base Current in p-n-p BJTs for Circuit-Level Simulation. *Li, L.*, +, *TNS Aug. 2021 2220-2231*
- Neutron-Induced Failure Dependence on Reverse Gate Voltage for SiC Power MOSFETs in Atmospheric Environment. *Niskanen, K.*, +, *TNS Aug. 2021 1623-1632*
- Operating Temperature Range of Phosphorous-Doped Optical Fiber Dosimeters Exploiting Infrared Radiation-Induced Attenuation. *Morana, A.*, +, *TNS May 2021 906-912*
- Photobleaching Effect on Infrared Radiation-Induced Attenuation of Germanosilicate Optical Fibers at MGy Dose Levels. *Campanella, C.*, +, *TNS Aug. 2021 1688-1693*
- Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays. *Blanchet, T.*, +, *TNS Aug. 2021 1681-1687*
- Relating Gain Degradation to Defects Production in Neutron-Irradiated 4H-SiC Transistors. *Dong, P.*, +, *TNS March 2021 312-317*
- Single-Event Effect Responses of Integrated Planar Inductors in 65-nm CMOS. *Biereigel, S.*, +, *TNS Nov. 2021 2587-2597*
- Supply Voltage Dependence of Ring Oscillator Frequencies for Total Ionizing Dose Exposures for 7-nm Bulk FinFET Technology. *Xiong, Y.*, +, *TNS Aug. 2021 1579-1584*
- Systematic Analysis of Reliability of Large-Area 4H-SiC Charged Particle Detector Under Harsh He Ion Irradiation. *Gao, R.*, +, *TNS May 2021 1169-1174*
- Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*
- TID Degradation Mechanisms in 16-nm Bulk FinFETs Irradiated to Ultra-high Doses. *Ma, T.*, +, *TNS Aug. 2021 1571-1578*
- Total-Ionizing-Dose Response of Highly Scaled Gate-All-Around Si Nanowire CMOS Transistors. *Gorchichko, M.*, +, *TNS May 2021 687-696*
- Ultra-High Total Ionizing Dose Effects on MOSFETs for Analog Applications. *Dewitte, H.*, +, *TNS May 2021 697-706*
- Variability in Total-Ionizing-Dose Response of Fourth-Generation SiGe HBTs. *Teng, J.W.*, +, *TNS May 2021 949-957*
- Silicon photonics**
- Novel Model for Analysis and Optimization of Silicon Photomultiplier-Based Scintillation Systems. *Sommer, M.*, +, *TNS Dec. 2021 2771-2778*
- Silicon radiation detectors**
- A Custom Low-Noise Silicon Photodiode Detector Designed for Use With X-Ray Capillary Optics. *Sleator, C.C.*, +, *TNS Aug. 2021 2249-2256*
- A Highly Linear FPGA-Based TDC and a Low-Power Multichannel Readout ASIC With a Shared SAR ADC for SiPM Detectors. *Tang, Y.*, +, *TNS Aug. 2021 2286-2293*
- A Low-Power Time-to-Digital Converter for the CMS Endcap Timing Layer (ETL) Upgrade. *Zhang, W.*, +, *TNS Aug. 2021 1984-1992*
- ALTAIR: A Low-Noise, Low-Power, High-Speed and Wide Dynamic Range ASIC for X- and γ-Ray Spectroscopy With CdTe/CdZnTe Pixel Detectors. *Macera, D.*, +, *TNS Feb. 2021 182-188*
- Analytical Model of the Discharge Transient in Pulsed-Reset Charge-Sensitive Amplifiers. *Mele, F.*, +, *TNS July 2021 1511-1518*
- ATLAS Hardware-Based Endcap Muon Trigger for Future Upgrades. *Mino, Y.*, *TNS Aug. 2021 2012-2019*
- Cooling and Timing Tests of the ATLAS Fast Tracker VME Boards. *Sottocornola, S.*, +, *TNS Aug. 2021 2051-2058*
- Development of a Tabletop Setup for the Transient Current Technique Using Two-Photon Absorption in Silicon Particle Detectors. *Wiehe, M.*, +, *TNS Feb. 2021 220-228*
- Enhanced Energy Resolution of GaN-on-Sapphire p-i-n Alpha-Particle Detector With Isoelectronic Al-Doped i-GaN Layer. *Geng, X.*, +, *TNS Aug. 2021 2301-2308*
- Evaluation of Timepix3 Si and CdTe Hybrid-Pixel Detectors' Spectrometric Performances on X- and Gamma-Rays. *Amoyal, G.*, +, *TNS Feb. 2021 229-235*
- Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C.*, +, *TNS June 2021 1244-1250*
- GAMMA: A 16-Channel Spectroscopic ASIC for SiPMs Readout With 84-dB Dynamic Range. *Buonanno, L.*, +, *TNS Oct. 2021 2559-2572*
- Hi'Beam-A: A Pixelated Beam Monitor for the Accelerator of a Heavy-Ion Therapy Facility. *Zhang, H.*, +, *TNS Aug. 2021 2081-2087*
- Iterative Retina for High Track Multiplicity in a Barrel-Shaped Tracker and High Magnetic Field. *Deng, W.*, +, *TNS Aug. 2021 1937-1943*
- Mapping the Spatial Dependence of Charge-Collection Efficiency in Semiconductor Devices Using Pulsed-Laser Testing. *Hales, J.M.*, +, *TNS May 2021 617-625*

Multilayered Solid-State Neutron Sensor. *Rice, W.C.*, +, *TNS May 2021 890-896*
 Nonlinearity Simulation of Digital SiPM Response for Inhomogeneous Light. *Kumar, S.*, +, *TNS March 2021 354-358*

Performance of the Data-Handling Hub Readout System for the Belle II Pixel Detector. *Huber, S.*, +, *TNS Aug. 2021 1961-1967*

Performance of the Unified Readout System of Belle II. *Nakao, M.*, +, *TNS Aug. 2021 1826-1832*

Readout Firmware of the Vertex Locator for LHCb Run 3 and Beyond. *Hennesy, K.*, +, *TNS Oct. 2021 2472-2479*

SIRIO: A High-Speed CMOS Charge-Sensitive Amplifier for High-Energy-Resolution X- γ Ray Spectroscopy With Semiconductor Detectors. *Mele, F.*, +, *TNS March 2021 379-383*

The MiniSDD-Based 1-Mpixel Camera of the DSSC Project for the European XFEL. *Porro, M.*, +, *TNS June 2021 1334-1350*

The Mu3e Data Acquisition. *Augustin, H.*, +, *TNS Aug. 2021 1833-1840*

The Study of Calibration for the Hybrid Pixel Detector With Single Photon Counting in HEPs-BPIX. *Ding, Y.*, +, *TNS Aug. 2021 2088-2095*

Silicon-on-insulator

Charge Trapping and Transconductance Degradation in Irradiated 3-D Sequentially Integrated FDSOI MOSFETs. *Toguchi, S.*, +, *TNS May 2021 707-715*

Dependence of Temperature and Back-Gate Bias on Single-Event Upset Induced by Heavy Ion in 0.2- μm DSOI CMOS Technology. *Wang, Y.*, +, *TNS Aug. 2021 1660-1667*

Impact of Surface Recombination on Single-Event Charge Collection in an SOI Technology. *Tonigan, A.M.*, +, *TNS March 2021 305-311*

Impact of TID on Within-Wafer Variability of Radiation-Hardened SOI Wafers. *Zheng, Q.*, +, *TNS July 2021 1423-1429*

Influence of Buried Oxide Si⁺ Implantation on TID and NBTI Effects for PDSOI MOSFETs. *Peng, C.*, +, *TNS Feb. 2021 156-164*

Influence of Supply Voltage and Body Biasing on Single-Event Upsets and Single-Event Transients in UTBB FD-SOI. *de Boissac, C.L.*, +, *TNS May 2021 850-856*

Investigation of Buried-Well Potential Perturbation Effects on SEU in SOI DICE-Based Flip-Flop Under Proton Irradiation. *Sakamoto, K.*, +, *TNS June 2021 1222-1227*

Investigation of Radiation Hardening by Back-Channel Adjustment in PDSOI MOSFETs. *Liu, C.*, +, *TNS Nov. 2021 2609-2615*

Measurement and Evaluation of the Within-Wafer TID Response Variability on BOX Layer of SOI Technology. *Zheng, Q.*, +, *TNS Oct. 2021 2516-2523*

Radiation-Hardened Cortex-R4F System-on-Chip Prototype With Total Ionizing Dose Dynamic Compensation in 28-nm FD-SOI. *Abouzeid, F.*, +, *TNS May 2021 1040-1044*

Role of Electron-Induced Coulomb Interactions to the Total SEU Rate During Earth and JUICE Missions. *Caron, P.*, +, *TNS Aug. 2021 1607-1612*

Scaling Trends of Digital Single-Event Effects: A Survey of SEU and SET Parameters and Comparison With Transistor Performance. *Kobayashi, D.*, *TNS Feb. 2021 124-148*

Single-Event Response of 22-nm Fully Depleted Silicon-on-Insulator Static Random Access Memory. *Casey, M.C.*, +, *TNS April 2021 402-409*

Single-Event Transient Space Characterizations in 28-nm UTBB SOI Technologies and Below. *de Boissac, C.L.*, +, *TNS Jan. 2021 21-26*

TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T.*, +, *TNS May 2021 603-610*

TID Effects Induced by ARACOR, ⁶⁰Co, and ORIATRON Photon Sources in MOS Devices: Impact of Geometry and Materials. *Lambert, D.*, +, *TNS May 2021 991-1001*

Total Ionizing Dose Responses of 22-nm FDSOI and 14-nm Bulk FinFET Charge-Trap Transistors. *Brewer, R.M.*, +, *TNS May 2021 677-686*

Silver

3-D Optical Imaging System of Muon Beams Using a Silver Activated Zinc Sulfide (ZnS(Ag)) Sheet Combined With a Mirror. *Yamamoto, S.*, +, *TNS Dec. 2021 2748-2752*

Single event transients

Neutron-Induced Pulwidth Distribution of Logic Gates Characterized Using a Pulse Shrinking Chain-Based Test Structure. *Pande, N.*, +, *TNS Dec. 2021 2736-2747*

Single event upsets

A Body-Biasing Technique for Single-Event Transient Mitigation in 28-nm Bulk CMOS Process. *Liu, J.*, +, *TNS Dec. 2021 2717-2723*

Frame-Level Intermodular Configuration Scrubbing of On-Detector FPGAs for the ARICH at Belle II. *Giordano, R.*, +, *TNS Dec. 2021 2810-2817*

Ultralow Power System-on-Chip SRAM Characterization by Alpha and Neutron Irradiation. *Haran, A.*, +, *TNS Nov. 2021 2598-2608*

Singular value decomposition

Symmetry Exploitation in Orbit Feedback Systems of Synchrotrons for Computational Efficiency. *Kempf, I.*, +, *TNS March 2021 258-269*

Sintering

Comparison of Photoluminescence and Scintillation Properties Between Lu₂O₃:Eu Single Crystal and Transparent Ceramic. *Haihang, Y.*, +, *TNS April 2021 477-482*

Sodium

Coupling Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Solar Array Drive Assembly. *Wang, X.*, +, *TNS July 2021 1399-1406*

Development of the Calibration System and Characterization of the Avalanche Photodiode for Scintillation Detection. *Jegal, J.*, +, *TNS June 2021 1304-1308*

Software fault tolerance

Investigating How Software Characteristics Impact the Effectiveness of Automated Software Fault Tolerance. *James, B.*, +, *TNS May 2021 1014-1022*

Software radio

NOAA Image Data Acquisition to Determine Soil Moisture in Arequipa, Perú. *Argume, A.*, +, *TNS Aug. 2021 1933-1936*

Soil

Measuring and Mapping Potassium in Agricultural Fields Using Gamma Spectroscopy. *Kavetskiy, A.*, +, *TNS Oct. 2021 2550-2558*

Solar cell arrays

Acquiring and Modeling of Si Solar-Cell Transient Response to Pulsed X-Ray. *Pan, L.*, +, *TNS May 2021 1152-1160*

Coupling Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Solar Array Drive Assembly. *Wang, X.*, +, *TNS July 2021 1399-1406*

Solar cells

Degradation Study of InGaAsN p-i-n Solar Cell Under 1-MeV Electron Irradiation. *Levillayer, M.*, +, *TNS Aug. 2021 1694-1700*

Solenoids

An FPGA-Based Trigger System With Online Track Recognition in COMET Phase-I. *Nakazawa, Y.*, +, *TNS Aug. 2021 2028-2034*

Solid scintillation detectors

A Study on Energy Resolution of CANDLES Detector. *Khai, B.T.*, +, *TNS March 2021 368-378*

Application of Gallium Nitride Technology in Particle Therapy Imaging. *Pandey, V.K.*, +, *TNS June 2021 1319-1324*

Design and Beam Test Results for the 2-D Projective sPHENIX Electromagnetic Calorimeter Prototype. *Aidala, C.A.*, +, *TNS Feb. 2021 173-181*

Design and Implementation of a Portable High-Performance Gamma-Ray Camera. *Zhu, B.*, +, *TNS June 2021 1309-1318*

Dual-Energy Micro-CT Using GAGG:Ce and LYSO:Ce Scintillators. *Xia, X.*, +, *TNS Feb. 2021 236-244*

Efficient Prompt Scintillation and Fast Neutron-Gamma Ray Discrimination Using Amorphous Blends of Difluorenylsilane Organic Glass and *In Situ* Polymerized Vinyltoluene. *Myllenbeck, N.R.*, +, *TNS Sept. 2021 2400-2406*

Gamma-Ray- and Neutron-Induced Photocurrent and Readout Noise in LYSO+SiPM Packages. *Hu, C.*, +, *TNS June 2021 1244-1250*

GAMMA: A 16-Channel Spectroscopic ASIC for SiPMs Readout With 84-dB Dynamic Range. *Buonanno, L.*, +, *TNS Oct. 2021 2559-2572*

High-Energy and High-Rate X-Ray Measurements Using HfO₂ Nanoparticle-Loaded Plastic Scintillator. *Kishimoto, S.*, +, *TNS Feb. 2021 165-172*

Improvement in Plastic Scintillator with Loading of BaFBr:Eu²⁺ Radioluminescence Phosphor. *Rajakrishna, K.*, +, *TNS June 2021 1286-1295*

Neutron Response of the EJ-254 Boron-Loaded Plastic Scintillator. *Gabella, G.*, +, *TNS Jan. 2021 46-53*

Neutron-Stimulated Gamma Ray Measurements for Chlorine Detection. *Kavetskiy, A.*, +, *TNS July 2021 1495-1504*

- Nonlinearity Simulation of Digital SiPM Response for Inhomogeneous Light. *Kumar, S.*, +, *TNS March 2021 354-358*
- Performance Evaluation of the TOF-Wall Detector of the FOOT Experiment. *Morrocchi, M.*, +, *TNS May 2021 1161-1168*
- Performances of C-BORD's Tagged Neutron Inspection System for Explosives and Illicit Drugs Detection in Cargo Containers. *Sardet, A.*, +, *TNS March 2021 346-353*
- Pulse Shape Discrimination of CsI(Tl) With a Photomultiplier Tube and Multipixel Photon Counters. *Viet, N.V.H.*, +, *TNS Feb. 2021 203-210*
- Real-Time Signal Processing for Mitigating SiPM Dark Noise Effects in a Scintillating Neutron Detector. *Pritchard, K.*, +, *TNS July 2021 1519-1527*
- Row-Column Readout Method to Mitigate Radiographic-Image Blurring From Multipixel Events in a Coded-Aperture Imaging System. *Boo, J.*, +, *TNS May 2021 1175-1183*
- Time Resolution of BC422 Plastic Scintillator Read Out by a SiPM. *Stoykov, A.*, +, *TNS July 2021 1487-1494*
- Value-Assigned Pulse Shape Discrimination for Neutron Detectors. *Teh, F.C.E.*, +, *TNS Aug. 2021 2294-2300*
- Solid state circuit design**
- Characterization of a Small-Scale Prototype Detector With Wide Dynamic Range for Time-Resolved High-Energy X-Ray Applications. *Shanks, K.S.*, +, *TNS Dec. 2021 2753-2761*
- Solid-state phase transformations**
- Defect-Induced Phase Transition in Hafnium Oxide Thin Films: Comparing Heavy Ion Irradiation and Oxygen-Engineering Effects. *Vogel, T.*, +, *TNS Aug. 2021 1542-1547*
- Space charge**
- Coupling Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Solar Array Drive Assembly. *Wang, X.*, +, *TNS July 2021 1399-1406*
- Particle Tracking With Space Charge Effects Using Graphics Processing Unit. *Kurimoto, Y.*, *TNS Aug. 2021 1912-1919*
- Space radiation**
- Special NSREC 2020 Issue of the IEEE Transactions on Nuclear Science Editor Comments. *Fleetwood, D.*, +, *TNS May 2021 492*
- Space vehicle electronics**
- Design and Verification of a 6.25 GHz LC-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. *Monda, D.*, +, *TNS Oct. 2021 2524-2532*
- Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D.*, +, *TNS May 2021 716-723*
- TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T.*, +, *TNS May 2021 603-610*
- TID and Heavy-Ion Performance of an RHBD Multichannel Digitizer in 180-nm CMOS. *Quilligan, G.*, +, *TNS July 2021 1414-1422*
- Space vehicles**
- Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D.*, +, *TNS May 2021 716-723*
- Radiation Shielding Evaluation of Spacecraft Walls Against Heavy Ions Using Microdosimetry. *Peracchi, S.*, +, *TNS May 2021 897-905*
- Spatial resolution**
- High Spatial Resolution Tomographic Gamma Scanning Reconstruction With Improved MLEM Iterative Algorithm Based on Split Bregman Total Variation Regularization. *Mu, X.*, +, *TNS Dec. 2021 2762-2770*
- Special issues and sections**
- Comments by the Editors. *Fleetwood, D.*, +, *TNS Aug. 2021 1531*
- Editorial. *Ritt, S.*, *TNS Aug. 2021 1793*
- Special NSREC 2020 Issue of the IEEE Transactions on Nuclear Science Editor Comments. *Fleetwood, D.*, +, *TNS May 2021 492*
- Spectral analysis**
- ADC Nonlinearity Correction for the Majorana Demonstrator. *Abgrall, N.*, +, *TNS March 2021 359-367*
- Spectroscopy**
- GAMMA: A 16-Channel Spectroscopic ASIC for SiPMs Readout With 84-dB Dynamic Range. *Buonanno, L.*, +, *TNS Oct. 2021 2559-2572*
- SPICE**
- Influence of Supply Voltage and Body Biasing on Single-Event Upsets and Single-Event Transients in UTBB FD-SOI. *de Boissac, C.L.*, +, *TNS May 2021 850-856*
- Modeling the Ionization Damage on Excess Base Current in p-n-p BJTs for Circuit-Level Simulation. *Li, L.*, +, *TNS Aug. 2021 2220-2231*
- Monitoring of Particle Count Rate and LET Variations With Pulse Stretching Inverters. *Andjelkovic, M.*, +, *TNS Aug. 2021 1772-1781*
- Spin polarized transport**
- Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy. *Xiao, T.P.*, +, *TNS May 2021 581-587*
- Spin-orbit interactions**
- Irradiation Effects on Perpendicular Anisotropy Spin-Orbit Torque Magnetic Tunnel Junctions. *Alamdar, M.*, +, *TNS May 2021 665-670*
- SRAM chips**
- 0.1–10 MeV Neutron Soft Error Rate in Accelerator and Atmospheric Environments. *Cecchetto, M.*, +, *TNS May 2021 873-883*
- Assessment of Proton Direct Ionization for the Radiation Hardness Assurance of Deep Submicron SRAMs Used in Space Applications. *Coronetti, A.*, +, *TNS May 2021 937-948*
- Characterizing Energetic Dependence of Low-Energy Neutron-Induced SEU and MCU and Its Influence on Estimation of Terrestrial SER in 65-nm Bulk SRAM. *Liao, W.*, +, *TNS June 2021 1228-1234*
- Dependence of Temperature and Back-Gate Bias on Single-Event Upset Induced by Heavy Ion in 0.2- μm DSOI CMOS Technology. *Wang, Y.*, +, *TNS Aug. 2021 1660-1667*
- Design-Stage Hardening of 65-nm CMOS Standard Cells Against Multiple Events. *Balbekov, A.O.*, +, *TNS Aug. 2021 1712-1718*
- Dosimetry of Thermal Neutron Beamlines at a Pulsed Spallation Source for Application to the Irradiation of Microelectronics. *Cazzaniga, C.*, +, *TNS May 2021 921-927*
- Electrical Measurement of Cell-to-Cell Variation of Critical Charge in SRAM and Sensitivity to Single-Event Upsets by Low-Energy Protons. *Cannon, J.M.*, +, *TNS May 2021 815-822*
- Electron-Induced Upsets and Stuck Bits in SDRAMs in the Jovian Environment. *Soderstrom, D.*, +, *TNS May 2021 716-723*
- Emulating Radiation-Induced Multicell Upset Patterns in SRAM FPGAs With Fault Injection. *Perez-Celis, A.*, +, *TNS Aug. 2021 1594-1599*
- Evaluating Architectural, Redundancy, and Implementation Strategies for Radiation Hardening of FinFET Integrated Circuits. *Pagliarini, S.*, +, *TNS May 2021 1045-1053*
- How Reduced Data Precision and Degree of Parallelism Impact the Reliability of Convolutional Neural Networks on FPGAs. *Libano, F.*, +, *TNS May 2021 865-872*
- Identifying Radiation-Induced Micro-SEFIs in SRAM FPGAs. *Perez-Celis, A.*, +, *TNS Oct. 2021 2480-2487*
- Impact of the Bitcell Topology on the Multiple-Cell Upsets Observed in VLSI Nanoscale SRAMs. *Clemente, J.A.*, +, *TNS Sept. 2021 2383-2391*
- Muon-Induced Single-Event Upsets in 20-nm SRAMs: Comparative Characterization With Neutrons and Alpha Particles. *Kato, T.*, +, *TNS July 2021 1436-1444*
- Neutron Radiation Testing of a TMR VexRiscv Soft Processor on SRAM-Based FPGAs. *Wilson, A.E.*, +, *TNS May 2021 1054-1060*
- Partial TMR for Improving the Soft Error Reliability of SRAM-Based FPGA Designs. *Keller, A.M.*, +, *TNS May 2021 1023-1031*
- Scaling Trends of Digital Single-Event Effects: A Survey of SEU and SET Parameters and Comparison With Transistor Performance. *Kobayashi, D.*, *TNS Feb. 2021 124-148*
- Single-Event Response of 22-nm Fully Depleted Silicon-on-Insulator Static Random Access Memory. *Casey, M.C.*, +, *TNS April 2021 402-409*
- Study of SEU Sensitivity of SRAM-Based Radiation Monitors in 65-nm CMOS. *Wang, J.*, +, *TNS May 2021 913-920*
- The Influence of Ion Track Characteristics on Single-Event Upsets and Multiple-Cell Upsets in Nanometer SRAM. *Luo, Y.*, +, *TNS May 2021 1111-1119*
- TIARA: Industrial Platform for Monte Carlo Single-Event Simulations in Planar Bulk, FD-SOI, and FinFET. *Thery, T.*, +, *TNS May 2021 603-610*

Ultralow Power System-on-Chip SRAM Characterization by Alpha and Neutron Irradiation. *Haran, A.*, +, *TNS Nov. 2021 2598-2608*

State feedback

L_1 -Adaptive Robust Control Design for a Pressurized Water-Type Nuclear Power Plant. *Vajpayee, V.*, +, *TNS July 2021 1381-1398*

Statistical analysis

Analysis of Single-Event Transients (SETs) Using Machine Learning (ML) and Ionizing Radiation Effects Spectroscopy (IRES). *Loveless, T.D.*, +, *TNS Aug. 2021 1600-1606*

Development of TID Hardness Assurance Methodologies to Capitalize on Statistical Radiation Environment Models. *Ladbury, R.*, +, *TNS Aug. 2021 1736-1745*

Variability in Total-Ionizing-Dose Response of Fourth-Generation SiGe HBTs. *Teng, J.W.*, +, *TNS May 2021 949-957*

Stochastic processes

A Code Verification for the Cavity SGEMP Simulation Code LASER-SGEMP. *Xu, Z.*, +, *TNS June 2021 1251-1257*

Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G.*, +, *TNS Jan. 2021 9-20*

Stoichiometry

Growth of $Cd_{0.9}Zn_{0.1}Te_{1-y}Se_y$ Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*

Storage rings

Accelerated Deep Reinforcement Learning for Fast Feedback of Beam Dynamics at KARA. *Wang, W.*, +, *TNS Aug. 2021 1794-1800*

Experimental Research on HLS-II Performance by Means of the RF Phase Modulation Technique. *Zhao, Y.*, +, *TNS Feb. 2021 92-100*

Readout Electronics Prototype of TOF Detectors in CEE of HIRFL. *Lu, J.*, +, *TNS Aug. 2021 1976-1983*

Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G.*, +, *TNS Jan. 2021 9-20*

Symmetry Exploitation in Orbit Feedback Systems of Synchrotrons for Computational Efficiency. *Kempf, I.*, +, *TNS March 2021 258-269*

Strain measurement

Distributed Temperature and Strain Fiber-Based Sensing in Radiation Environment. *Sabatier, C.*, +, *TNS Aug. 2021 1675-1680*

Strain sensors

Distributed Temperature and Strain Fiber-Based Sensing in Radiation Environment. *Sabatier, C.*, +, *TNS Aug. 2021 1675-1680*

Streak cameras

Experimental Research on HLS-II Performance by Means of the RF Phase Modulation Technique. *Zhao, Y.*, +, *TNS Feb. 2021 92-100*

Strips

Low-Noise Analog Channel for the Readout of the Si(Li) Detector of the GAPS Experiment. *Manghisoni, M.*, +, *TNS Nov. 2021 2661-2669*

Superconducting cavity resonators

Online Detuning Computation and Quench Detection for Superconducting Resonators. *Bellandi, A.*, +, *TNS April 2021 385-393*

Superconducting resonators

Online Detuning Computation and Quench Detection for Superconducting Resonators. *Bellandi, A.*, +, *TNS April 2021 385-393*

Surface contamination

Neutron-Stimulated Gamma Ray Measurements for Chlorine Detection. *Kavetskiy, A.*, +, *TNS July 2021 1495-1504*

Surface emitting lasers

A 10-Gb/s Driver/Receiver ASIC and Optical Modules for Particle Physics Experiments. *Huang, X.*, +, *TNS Aug. 2021 1998-2004*

Surface recombination

Impact of Surface Recombination on Single-Event Charge Collection in an SOI Technology. *Tonigan, A.M.*, +, *TNS March 2021 305-311*

Switched capacitor networks

A Switched Capacitor Waveform Digitizing ASIC at Cryogenic Temperature for HPGc Detectors. *Liu, F.*, +, *TNS Aug. 2021 2315-2322*

Synchronization

A Clock Distribution and Synchronization Scheme Over Optical Links for Large-Scale Physics Experiments. *Hu, Y.*, +, *TNS June 2021 1351-1358*

A Timing, Trigger, and Control System With Picosecond Precision Based on 10 Gbit/s Passive Optical Networks for High-Energy Physics. *Mendes, E.*, +, *TNS April 2021 447-457*

Optimization of Beam Arrival and Flight Time Measurement System Based on Cavity Monitors at the SXFEL. *Cao, S.*, +, *TNS Jan. 2021 2-8*

Prototype of Clock and Timing Distribution and Synchronization Electronics for SHINE. *Gu, J.*, +, *TNS Aug. 2021 2113-2120*

White Rabbit Time Synchronization for Radiation Detector Readout Electronics. *Hennig, W.*, +, *TNS Aug. 2021 2059-2065*

Synchrotron radiation

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Experimental Research on HLS-II Performance by Means of the RF Phase Modulation Technique. *Zhao, Y.*, +, *TNS Feb. 2021 92-100*

Stochastic Cooling Pickup/Kicker Developments for the High-Precision Spectrometer Ring in the HIAF Project at IMP. *Zhu, G.*, +, *TNS Jan. 2021 9-20*

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Single Event Effects Characterization of the Programmable Logic of Xilinx Zynq-7000 FPGA Using Very/Ultra High-Energy Heavy Ions. *Vlagkoulis, V.*, +, *TNS Jan. 2021 36-45*

Ultralow Power System-on-Chip SRAM Characterization by Alpha and Neutron Irradiation. *Haran, A.*, +, *TNS Nov. 2021 2598-2608*

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- Evaluation of the Radiation Hardness of Photodiodes in 180-nm CMOS Technology for Medical Applications. *Segmanovic, F.*, +, *TNS Sept. 2021* 2367-2374
- Evidence of Interface Trap Build-Up in Irradiated 14-nm Bulk FinFET Technologies. *Privat, A.*, +, *TNS May 2021* 671-676
- Influence of Supply Voltage and Body Biasing on Single-Event Upsets and Single-Event Transients in UTBB FD-SOI. *de Boissac, C.L.*, +, *TNS May 2021* 850-856
- Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. *Esposito, M.G.*, +, *TNS May 2021* 724-732
- Neutron-Induced Failure Dependence on Reverse Gate Voltage for SiC Power MOSFETs in Atmospheric Environment. *Niskanen, K.*, +, *TNS Aug. 2021* 1623-1632
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- Single-Event Upsets in a 7-nm Bulk FinFET Technology With Analysis of Threshold Voltage Dependence. *D'Amico, J.V.*, +, *TNS May 2021* 823-829
- Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs. *Rony, M.W.*, +, *TNS May 2021* 807-814
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A Zynq-Based Flexible ADC Architecture Combining Real-Time Data Streaming and Transient Recording. *Garola, A.R.*, +, *TNS Feb. 2021 245-249*

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- Design and Verification of a 6.25 GHz LC-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. *Monda, D.*, +, *TNS Oct. 2021 2524-2532*
- Investigation by Thermoluminescence of the Ionization and Annealing Processes in Irradiated Ge-Doped Silica Fiber Preform. *Gutilla, A.*, +, *TNS Aug. 2021 1556-1564*
- Photobleaching Effect on Infrared Radiation-Induced Attenuation of Germanosilicate Optical Fibers at MGy Dose Levels. *Campanella, C.*, +, *TNS Aug. 2021 1688-1693*

Regeneration of Fiber Bragg Gratings and Their Responses Under X-Rays. *Blanchet, T.*, +, *TNS Aug. 2021 1681-1687*

Temperature Effect on the Radioluminescence of Cu-, Ce-, and CuCe-Doped Silica-Based Fiber Materials. *Kerboub, N.*, +, *TNS Aug. 2021 1782-1787*

X-ray fluorescence analysis

Self-Absorption Correction in X-Ray Fluorescence-Computed Tomography With Deep Convolutional Neural Network. *Gao, B.*, +, *TNS June 2021 1194-1206*

X-ray imaging

A New CL Reconstruction Method Under the Displaced Sample Stage Scanning Mode. *Zhang, Y.*, +, *TNS Nov. 2021 2574-2586*

Bias Polarity Switching-Type TlBr X-Ray Imager. *Takagi, K.*, +, *TNS Sept. 2021 2435-2439*

Diagonal 4-in ZnO Nanowire Cold Cathode Flat-Panel X-Ray Source: Preparation and Projection Imaging Properties. *Wang, L.*, +, *TNS March 2021 338-345*

PGA-Based Real-Time Data Acquisition for Ultrafast X-Ray Computed Tomography. *Windisch, D.*, +, *TNS Dec. 2021 2779-2786*

X-ray lasers

Online Detuning Computation and Quench Detection for Superconducting Resonators. *Bellandi, A.*, +, *TNS April 2021 385-393*

Optimization of Beam Arrival and Flight Time Measurement System Based on Cavity Monitors at the SXFEL. *Cao, S.*, +, *TNS Jan. 2021 2-8*

Prototype of Clock and Timing Distribution and Synchronization Electronics for SHINE. *Gu, J.*, +, *TNS Aug. 2021 2113-2120*

X-ray optics

A Custom Low-Noise Silicon Photodiode Detector Designed for Use With X-Ray Capillary Optics. *Sleator, C.C.*, +, *TNS Aug. 2021 2249-2256*

X-ray spectroscopy

Initial Tests and Characterization of the Readout Electronics for the IXPE Mission. *Barbanera, M.*, +, *TNS May 2021 1144-1151*

SIRIO: A High-Speed CMOS Charge-Sensitive Amplifier for High-Energy-Resolution X- γ Ray Spectroscopy With Semiconductor Detectors. *Mele, F.*, +, *TNS March 2021 379-383*

X- γ Ray Spectroscopy With a CdTe Pixel Detector and SIRIO Preamplifier at Deep Submicrosecond Signal-Processing Time. *Sammartini, M.*, +, *TNS Jan. 2021 70-75*

Xenon

Real-Time Particle Identification in Liquid Xenon. *Nicolo, D.*, +, *TNS Nov. 2021 2630-2636*

Y

Ytterbium

Chopped Cold Neutron Beam Activation Analysis. *Turkoglu, D.J.*, +, *TNS July 2021 1505-1510*

Combined Temperature and Radiation Effects on the Gain of Er- and Er-Yb-Doped Fiber Amplifiers. *Aubry, M.*, +, *TNS May 2021 793-800*

Z

Zinc alloys

Performance of Larger-Volume $40 \times 40 \times 10$ - and $40 \times 40 \times 15$ -mm³ CdZnTe Detectors. *Zhu, Y.*, +, *TNS Feb. 2021 250-255*

Zinc compounds

3-D Optical Imaging System of Muon Beams Using a Silver Activated Zinc Sulfide (ZnS(Ag)) Sheet Combined With a Mirror. *Yamamoto, S.*, +, *TNS Dec. 2021 2748-2752*

Diagonal 4-in ZnO Nanowire Cold Cathode Flat-Panel X-Ray Source: Preparation and Projection Imaging Properties. *Wang, L.*, +, *TNS March 2021 338-345*

Growth of Cd_{0.9}Zn_{0.1}Te_{1-y}Se_y Single Crystals for Room-Temperature Gamma Ray Detection. *Kleppinger, J.W.*, +, *TNS Sept. 2021 2429-2434*

Zone melting

Comparison of Photoluminescence and Scintillation Properties Between Lu₂O₃:Eu Single Crystal and Transparent Ceramic. *Haihang, Y.*, +, *TNS April 2021 477-482*