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This index covers all technical items—papers, correspondence, reviews, etc.—that appeared in this periodical during 2019, and items from previous years that were commented upon or corrected in 2019. 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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- Bonaldo, S.**, Gerardin, S., Jin, X., Paccagnella, A., Faccio, F., Borghello, G., and Fleetwood, D.M., Charge Buildup and Spatial Distribution of Interface Traps in 65-nm pMOSFETs Irradiated to Ultrahigh Doses; *TNS July 2019 1574-1583*
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- Bonsall, J.P.**, see Khachatryan, A., *TNS Jan. 2019 368-375*
- Bonsall, J.P.**, see Khachatryan, A., *TNS July 2019 1682-1687*
- Borel, T.**, Furic, S., Leduc, E., Michez, A., Boch, J., Touboul, A., Azais, B., Danzeca, S., and Dusseau, L., Total Ionizing Dose Effect in LD MOS Oxides and Devices; *TNS July 2019 1606-1611*
- Borga, A.**, Vermeulen, M., Wierman, K., Wood, L., Church, E., Filthaut, F., Gamberini, E., de Jong, P., Lehmann Miotto, G., Schreuder, F., Schumacher, J., and Sipos, R., FELIX-Based Readout of the Single-Phase ProtoDUNE Detector; *TNS July 2019 993-997*
- Borghello, G.**, see Zhang, C., *TNS Jan. 2019 38-47*
- Borghello, G.**, see Bonaldo, S., *TNS July 2019 1574-1583*
- Boscher, D.**, see Sicard, A., *TNS July 2019 1738-1745*
- Bossev, D.P.**, see Gadlage, M.J., *TNS Jan. 2019 148-154*
- Bossev, D.P.**, see Conway, P.M., *TNS Jan. 2019 466-473*
- Bottom, F.**, see Olantera, L., *TNS July 2019 1663-1670*
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- Boukenter, A.**, see Sabatier, C., *TNS July 2019 1651-1656*
- Bourdarie, S.**, see Ruffenach, M., *TNS July 2019 1753-1760*
- Bourdarie, S.**, Fournier, A., Sicard, A., Hulot, G., Aubert, J., Standarovski, D., and Ecoffet, R., Impact of Earth's Magnetic Field Secular Drift on the Low-Altitude Proton Radiation Belt From 1900 to 2050; *TNS July 2019 1746-1752*
- Bourdarie, S.**, see Sicard, A., *TNS July 2019 1738-1745*
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- Braga, D.**, see Miryala, S., *TNS Nov. 2019 2338-2345*
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- Brecher, C.**, see Miller, S.R., *TNS Oct. 2019 2229-2232*
- Brewe, D.L.**, see Khachatryan, A., *TNS Jan. 2019 368-375*
- Brewe, D.L.**, see Khachatryan, A., *TNS July 2019 1682-1687*
- Brigatti, A.**, see Pedretti, D., *TNS July 2019 1151-1158*
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- Brown, D.**, see Fleetwood, D., *TNS July 2019 1352*
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- Bruce, D.I.**, see Conway, P.M., *TNS Jan. 2019 466-473*
- Bruckner, E.**, see Kalliokoski, M., *TNS May 2019 846-851*
- Brucoli, M.**, Cesari, J., Danzeca, S., Brugger, M., Masi, A., Pineda, A., Dusseau, L., and Wrobel, F., Investigation on Passive and Autonomous Mode Operation of Floating Gate Dosimeters; *TNS July 2019 1620-1627*
- Brugger, M.**, see Alia, R.G., *TNS Jan. 2019 458-465*
- Brugger, M.**, see Girard, S., *TNS Jan. 2019 306-311*
- Brugger, M.**, see Tali, M., *TNS Jan. 2019 437-443*
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- Brugger, M.**, see Fernandez-Martinez, P., *TNS July 2019 1523-1531*
- Brugger, M.**, see Kerboub, N., *TNS July 2019 1541-1547*
- Brugger, M.**, see Brucoli, M., *TNS July 2019 1620-1627*
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- Buchheit, T.E.**, see Privat, A., *TNS Jan. 2019 190-198*
- Buchner, S.**, see Khachatryan, A., *TNS July 2019 1682-1687*
- Buchner, S.P.**, 2018 IEEE Nuclear and Space Radiation Effects Conference Awards Comments by the Chairman; *TNS Jan. 2019 11-12*
- Buchner, S.P.**, see Cho, M., *TNS Jan. 2019 240-247*
- Buchner, S.P.**, see Omprakash, A.P., *TNS Jan. 2019 389-396*
- Buchner, S.P.**, see Ildefonso, A., *TNS Jan. 2019 359-367*
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- Cai, A.**, *see* Zheng, Z., *TNS Feb. 2019 585-596*
- Calvel, P.**, *see* Mauguet, M., *TNS July 2019 1516-1522*
- Calvet, D.**, Back-End Electronics Based on an Asymmetric Network for Low Background and Medium- Scale Physics Experiments; *TNS July 2019 998-1006*
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- Campajola, M.**, *see* Lentaris, G., *TNS Jan. 2019 312-319*
- Cangialosi, C.**, *see* Fernandez-Martinez, P., *TNS July 2019 1523-1531*
- Cangialosi, C.**, *see* Ferraro, R., *TNS July 2019 1548-1556*
- Cannon, M.J.**, Keller, A.M., Rowberry, H.C., Thurlow, C.A., Perez-Celis, A., and Wirthlin, M.J., Strategies for Removing Common Mode Failures From TMR Designs Deployed on SRAM FPGAs; *TNS Jan. 2019 207-215*
- Cao, K.**, *see* Wang, B., *TNS Jan. 2019 77-81*
- Cao, L.**, Li, Z., and Wu, H., Numerical Simulation and Sensitivity Study of the Rhodium Self-Powered Neutron Detector Used in PWR; *TNS April 2019 742-751*
- Cao, P.**, *see* Yuan, J., *TNS July 2019 1165-1168*
- Cao, P.**, *see* Jiang, W., *TNS July 2019 1190-1193*
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- Cao, P.**, *see* Li, J., *TNS July 2019 1194-1198*
- Cao, Q.**, *see* Wang, Y., *TNS Oct. 2019 2275-2281*
- Cao, X.**, *see* Lu, B., *TNS Feb. 2019 597-608*
- Cao, Y.**, *see* Lv, L., *TNS June 2019 886-891*
- Cao, Y.**, *see* Lu, Q., *TNS July 2019 1048-1055*
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- Carini, G.**, *see* Wang, J., *TNS June 2019 960-968*
- Carlton, A.**, de Soria-Santacruz Pich, M., Kim, W., Jun, I., and Cahoy, K., Using the Galileo Solid-State Imaging Instrument as a Sensor of Jovian Energetic Electrons; *TNS Jan. 2019 255-261*
- Carmona, P.F.**, Eichin, M., Mayor, A., Regele, H., Grossmann, M., and Weber, D.C., Automating Quality Assurance of a Medical Particle Accelerator Safety System Using a Formal Language Driven Test Stand; *TNS July 2019 1280-1286*
- Caroli, E.**, *see* Pascoa, M.P., *TNS Sept. 2019 2063-2071*
- Caron, P.**, Inguibert, C., Artola, L., Ecoffet, R., and Bezerra, F., Physical Mechanisms of Proton-Induced Single-Event Upset in Integrated Memory Devices; *TNS July 2019 1404-1409*
- Carpino, A.**, Ruiz, M., Gonzalez, C., Vega, J., Dormido-Canto, S., Esquembrí, S., and Bernal, E., OpenCL Implementation of an Adaptive Disruption Predictor Based on a Probabilistic Venn Classifier; *TNS July 2019 1007-1013*
- Carr, M.**, *see* James, B., *TNS Jan. 2019 320-326*
- Carrío, F.**, and Valero, A., Clock Distribution and Readout Architecture for the ATLAS Tile Calorimeter at the HL-LHC; *TNS July 2019 1014-1020*
- Carugno, G.**, *see* Vasiukov, S., *TNS Nov. 2019 2333-2337*
- Caruso, R.**, *see* Pedretti, D., *TNS July 2019 1151-1158*
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- Cazalas, E.J.**, *see* Recker, M.C., *TNS Aug. 2019 1959-1965*
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- Cazzaniga, C.**, *see* Cecchetto, M., *TNS July 2019 1532-1540*
- Cecchetto, M.**, *see* Alia, R.G., *TNS Jan. 2019 458-465*
- Cecchetto, M.**, *see* Fernandez-Martinez, P., *TNS July 2019 1523-1531*
- Cecchetto, M.**, Fernandez-Martinez, P., Alia, R.G., Ferraro, R., Danzeca, S., Wrobel, F., Cazzaniga, C., and Frost, C.D., SEE Flux and Spectral Hardness Calibration of Neutron Spallation and Mixed-Field Facilities; *TNS July 2019 1532-1540*
- Centioli, C.**, *see* Santos, B., *TNS July 2019 1324-1329*
- Centioli, C.**, *see* Fernandes, A., *TNS July 2019 1318-1323*
- Centioli, C.**, *see* Cruz, N., *TNS July 2019 1310-1317*
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- Cerutti, F.**, *see* Ferraro, R., *TNS July 2019 1548-1556*
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- Champavere, A.**, *see* Sabatier, C., *TNS July 2019 1651-1656*
- Champley, K.M.**, Azevedo, S.G., Seetho, I.M., Glenn, S.M., McMichael, L.D., Smith, J.A., Kallman, J.S., Brown, W.D., and Martz, H.E., Method to Extract System-Independent Material Properties From Dual-Energy X-Ray CT; *TNS March 2019 674-686*
- Chang, J.**, Yuan, Y., and Zhang, W., Online Optimization System for 320-kV Heavy Ion Multidisciplinary Research Facility; *TNS July 2019 1782-1789*
- Chang, Y.**, *see* Yao, S., *TNS July 2019 1557-1565*
- Charitonidis, N.**, *see* Alia, R.G., *TNS Jan. 2019 458-465*
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- Chen, C.**, *see* Wang, J., *TNS July 2019 1267-1272*
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- Chen, H.**, *see* Li, X., *TNS July 2019 1612-1619*
- Chen, H.**, *see* Zhu, D., *TNS July 2019 1123-1129*
- Chen, H.**, Feng, C., Hu, J., Luo, L., Wang, L., Tan, Z., and Liu, S., Development of a Time-of-Flight Electronics System for Neutron Beam Profiling at CSNS-WNS; *TNS Aug. 2019 2005-2010*
- Chen, H.**, *see* Besin, D., *TNS Aug. 2019 2011-2016*
- Chen, J.**, *see* Wu, Z., *TNS Jan. 2019 177-183*
- Chen, J.**, *see* Foran, B., *TNS Jan. 2019 413-419*
- Chen, J.**, *see* Yang, F., *TNS Jan. 2019 506-511*
- Chen, J.**, *see* Yang, F., *TNS Jan. 2019 512-518*
- Chen, J.**, Wang, J., Tao, Y., Chen, Z., Wang, Y., and Niu, S., Simulation of SGEMP Using Particle-In-Cell Method Based on Conformal Technique; *TNS May 2019 820-826*
- Chen, J.**, *see* Wang, Z., *TNS Aug. 2019 1998-2004*
- Chen, J.**, *see* Wang, Z., *TNS Aug. 2019 1998-2004*
- Chen, J.**, *see* Feng, Y., *TNS Oct. 2019 2286-2292*
- Chen, J.**, *see* Feng, Y., *TNS Oct. 2019 2286-2292*
- Chen, K.**, *see* Lu, J., *TNS July 2019 1287-1295*
- Chen, K.**, *see* Besin, D., *TNS Aug. 2019 2011-2016*
- Chen, L.**, *see* Ding, L., *TNS June 2019 866-874*
- Chen, L.**, *see* Wang, J., *TNS June 2019 960-968*
- Chen, L.**, *see* Zhou, L., *TNS July 2019 1916-1920*
- Chen, R.**, *see* Ding, L., *TNS June 2019 866-874*
- Chen, R.**, *see* Zhao, W., *TNS July 2019 1491-1499*
- Chen, S.**, *see* Wu, Z., *TNS Jan. 2019 177-183*
- Chen, W.**, Song, Z., Guo, X., Wang, C., Zhang, F., Qi, C., Wang, X., Jin, X., Wei, Y., and Yang, S., Single-Event Upsets in SRAMs With Scaling Technology Nodes Induced by Terrestrial, Nuclear Reactor, and Monoenergetic Neutrons; *TNS June 2019 856-865*
- Chen, W.**, *see* Ding, L., *TNS June 2019 866-874*
- Chen, W.**, *see* Li, R., *TNS July 2019 1566-1573*
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- Chen, W.**, *see* Wu, M., *TNS July 2019 1820-1827*
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- Chen, Y.**, *see* Lu, B., *TNS Feb. 2019 597-608*
- Chen, Y.**, *see* Wang, J., *TNS July 2019 1267-1272*
- Chen, Y.**, Li, S., Wang, H., Wang, Y., and Xiao, B., The Implementation of Data Acquisition System for EAST Technical Diagnostic System; *TNS July 2019 1304-1309*
- Chen, Y.**, *see* Wang, Z., *TNS Aug. 2019 1998-2004*
- Chen, Y.**, *see* Peng, C., *TNS Oct. 2019 2170-2178*
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- Chen, Z.**, *see* Chen, J., *TNS May 2019 820-826*
- Chen, Z.**, *see* Zhu, D., *TNS July 2019 1123-1129*

- Chen, Z.**, see Yu, H., *TNS Dec. 2019 2435-2439*
- Cheng, P.J.**, see Yu, T., *TNS July 2019 1095-1099*
- Cheng, X.**, Hu, K., and Shao, Y., Dual-Polarity SiPM Readout Electronics Based on 1-bit Sigma-Delta Modulation Circuit for PET Detector Applications; *TNS Sept. 2019 2107-2113*
- Cheng, X.**, see Zhang, D., *TNS Oct. 2019 2215-2219*
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- Chilingaryan, S.**, see Tan Jerome, N., *TNS July 2019 1296-1303*
- Chiossi, F.**, see Vasiukov, S., *TNS Nov. 2019 2333-2337*
- Cho, M.**, Song, I., Zachary, F.E., Khachatryan, A., Warner, J.H., Buchner, S.P., McMorrow, D., Paki, P., and Cressler, J.D., Best Practices for Using Electrostatic Discharge Protection Techniques for Single-Event Transient Mitigation; *TNS Jan. 2019 240-247*
- Cho, M.**, see Kumar, S., *TNS June 2019 918-925*
- Cho, S.**, and Jiang, J., Fault Detection and Identification for Sensor Channels in Steam Generator Level Control Loops; *TNS May 2019 771-781*
- Choi, H.**, see Ji, Y., *TNS Dec. 2019 2422-2429*
- Choushi, Y.**, see Inome, Y., *TNS Aug. 2019 1993-1997*
- Chow, T.P.**, see McPherson, J.A., *TNS Jan. 2019 474-481*
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- Church, E.**, see Borga, A., *TNS July 2019 993-997*
- Cichalewski, W.**, see Makowski, D., *TNS July 2019 1056-1063*
- Cichalewski, W.**, Napieralski, A., Branlard, J., Grecki, M., Schlarb, H., and Piotrowski, A., European XFEL Superconducting Cryomodules Characterization Toward Modules Acceptance and Future LRF Operation; *TNS Sept. 2019 2145-2152*
- Citterio, M.**, see Besin, D., *TNS Aug. 2019 2011-2016*
- Clementi, C.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Coble, J.**, and Meier, D., Monitoring Aqueous Reprocessing Systems for Detection of Facility Misuse; *TNS April 2019 729-736*
- Codie Mishler, M.**, see Witczak, S.C., *TNS May 2019 795-800*
- Coelho, A.**, see Trindade, M.G., *TNS July 2019 1441-1448*
- Collaert, N.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Collazuol, G.**, see Ratti, L., *TNS Feb. 2019 567-574*
- Colombo, T.**, Durante, P., Galli, D., Manzali, M., Marconi, U., Neufeld, N., Pisani, F., Schwemmer, R., and Valat, S., Flit-Level InfiniBand Network Simulations of the DAQ System of the LHCb Experiment for Run-3; *TNS July 2019 1159-1164*
- Colombo, T.**, Durante, P., Galli, D., Marconi, U., Neufeld, N., Pisani, F., Schwemmer, R., Valat, S., and Voneki, B., The LHCb DAQ Upgrade for LHC Run3; *TNS July 2019 982-985*
- Combo, A.**, see Correia, M., *TNS Oct. 2019 2282-2285*
- Cong, P.**, see Li, R., *TNS July 2019 1566-1573*
- Cong, P.**, see Zhao, W., *TNS July 2019 1491-1499*
- Conway, P.M.**, Gadlage, M.J., Ingalls, J.D., Williams, A.M., Bruce, D.I., and Bossev, D.P., Impact of the Elemental Makeup of an IC in Generating Single-Event Upsets From Low-Energy (<10 MeV) Neutrons: A 3-D NAND Flash Case Study; *TNS Jan. 2019 466-473*
- Cooper, R.J.**, see Bilton, K.J., *TNS May 2019 827-837*
- Cooper, R.J.**, see Hellfeld, D., *TNS Sept. 2019 2088-2099*
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- Correia, C.M.B.A.**, see Santos, B., *TNS July 2019 1324-1329*
- Correia, C.M.B.A.**, see Fernandes, A., *TNS July 2019 1318-1323*
- Correia, C.M.B.A.**, see Correia, M., *TNS Oct. 2019 2282-2285*
- Correia, M.**, Sousa, J., Rodrigues, A.P., Carvalho, P.F., Santos, B., Combo, A., Correia, C.M.B.A., and Goncalves, B., PCIe Hot-Plug Support Standardization Challenges in ATCA; *TNS Oct. 2019 2282-2285*
- Corsini, R.**, see Tali, M., *TNS Jan. 2019 437-443*
- Corti, D.**, see Pedretti, D., *TNS July 2019 1151-1158*
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- Cruz, N.**, see Santos, B., *TNS July 2019 1324-1329*
- Cruz, N.**, see Fernandes, A., *TNS July 2019 1318-1323*
- Cruz, N.**, Esposito, B., Correia, C.M.B., Pereira, R.C., Santos, B., Fernandes, A., Carvalho, P.F., Sousa, J., Goncalves, B., Riva, M., Centioli, C., and Marocco, D., The Design and Performance of the Real-Time Software Architecture for the ITER Radial Neutron Camera; *TNS July 2019 1310-1317*
- Cuenca-Asensi, S.**, see Serrano-Cases, A., *TNS July 2019 1500-1509*
- Cui, J.**, see Zheng, Q., *TNS April 2019 702-709*
- Cui, J.**, see Zheng, Q., *TNS June 2019 892-898*
- Cui, Z.Q.**, see Yu, T., *TNS July 2019 1095-1099*
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- d'Amen, G.**, see Giangiacomi, N., *TNS July 2019 1021-1027*
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- Danzeca, S.**, see Borel, T., *TNS July 2019 1606-1611*
- Danzeca, S.**, see Brucoli, M., *TNS July 2019 1620-1627*
- Danzeca, S.**, see Ferraro, R., *TNS July 2019 1548-1556*
- Darvishi, M.**, Audet, Y., Blaquiére, Y., Thibeault, C., and Pichette, S., On the Susceptibility of SRAM-Based FPGA Routing Network to Delay Changes Induced by Ionizing Radiation; *TNS March 2019 643-654*
- Dasgupta, M.**, see James, B., *TNS Jan. 2019 320-326*
- David, D.**, see Keren, E., *TNS June 2019 946-954*
- David, G.**, see Biro, B., *TNS July 2019 1833-1839*
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- Davis, P.**, see Privat, A., *TNS Jan. 2019 190-198*
- De, V.**, see Kumar, S., *TNS June 2019 918-925*
- de Cataldo, G.**, Valentino, G., Franco, A., Alemany, R., Follin, F., Hostettler, M., and Wenninger, J., An Upgraded Luminosity Leveling Procedure for the ALICE Experiment; *TNS May 2019 763-770*
- de Jong, P.**, see Borga, A., *TNS July 2019 993-997*
- De La Fourniere, E.**, see Fontana, A., *TNS July 2019 1473-1482*
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- Debray, M.E.**, see Vega, N.A., *TNS Dec. 2019 2417-2421*
- Dedic, V.**, see Rejhon, M., *TNS Aug. 2019 1952-1958*
- Dehmelt, K.**, see Azmoun, B., *TNS Aug. 2019 1984-1992*
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 Di Francesca, D., Infantino, A., Li Vecchi, G., Girard, S., Alessi, A., Kadi, Y., and Brugger, M., Dosimetry Mapping of Mixed-Field Radiation Environment Through Combined Distributed Optical Fiber Sensing and FLUKA Simulation; *TNS Jan. 2019 299-305*
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 Ding, L., Chen, W., Wang, T., Chen, R., Luo, Y., Zhang, F., Pan, X., Sun, H., and Chen, L., Modeling the Dependence of Single-Event Transients on Strike Location for Circuit-Level Simulation; *TNS June 2019 866-874*
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 Du, B., Sterpone, L., Azimi, S., Merodio Codinachs, D., Ferlet-Cavrois, V., Boatella Polo, C., Alia, R.G., Kastriotou, M., and Fernandez-Martinez, P., Ultrahigh Energy Heavy Ion Test Beam on Xilinx Kintex-7 SRAM-Based FPGA; *TNS July 2019 1813-1819*
 Duan, Y., Yao, Y., Li, Z., Zhou, J., Huang, P., and Gao, W., SENSROC12: A Four-Channel Binary-Output Front-End Readout ASIC for Si-PIN-Based Personal Dosimeters; *TNS Aug. 2019 1976-1983*
 Ducret, S., *see* Artola, L., *TNS Jan. 2019 452-457*
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 Fang, J., Reaz, M., Weeden-Wright, S.L., Schrimpf, R.D., Reed, R.A., Weller, R.A., Fischetti, M.V., and Pantelides, S.T., Understanding the Average Electron-Hole Pair-Creation Energy in Silicon and Germanium Based on Full-Band Monte Carlo Simulations; *TNS Jan. 2019 444-451*
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 Feng, Y., Wang, J., Chen, J., Zhang, H., Wang, J., Xu, Y., Chen, J., Yang, D., Zhang, Y., Chen, C., and Zhang, G., Design of a Nonvacuum-Cooling Compact CCD Camera for Scientific Detection; *TNS Oct. 2019 2286-2292*

- Fenyvesi, A., *see* Biro, B., *TNS July 2019 1833-1839*
- Ferlet-Cavrois, V., *see* Alia, R.G., *TNS Jan. 2019 458-465*
- Ferlet-Cavrois, V., *see* Bagatin, M., *TNS Jan. 2019 48-53*
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- Ferlet-Cavrois, V., *see* Tali, M., *TNS Jan. 2019 437-443*
- Ferlet-Cavrois, V., *see* Du, B., *TNS July 2019 1813-1819*
- Fernandes, A., *see* Santos, B., *TNS July 2019 1324-1329*
- Fernandes, A., Marocco, D., Esposito, B., Correia, C.M.B.A., Pereira, R.C., Cruz, N., Santos, B., Carvalho, P.F., Sousa, J., Goncalves, B., Riva, M., Polastrone, F., and Centioli, C., FPGA Code for the Data Acquisition and Real-Time Processing Prototype of the ITER Radial Neutron Camera; *TNS July 2019 1318-1323*
- Fernandes, A., *see* Cruz, N., *TNS July 2019 1310-1317*
- Fernandes, F., *see* Goncalves, M., *TNS July 2019 1449-1456*
- Fernandez-Martinez, P., Cerutti, F., Danzeca, S., Delrieux, M., Froeschl, R., Gatignon, L., Gilardoni, S., Lendaro, J., Mateu, I., Ravotti, F., Wilkens, H., Alia, R.G., Gaillard, R., Cecchetto, M., Kastriotou, M., Kerboub, N., Tali, M., Wyrwol, V., Brugger, M., and Cangialosi, C., SEE Tests With Ultra Energetic Xe Ion Beam in the CHARM Facility at CERN; *TNS July 2019 1523-1531*
- Fernandez-Martinez, P., *see* Kerboub, N., *TNS July 2019 1541-1547*
- Fernandez-Martinez, P., *see* Cecchetto, M., *TNS July 2019 1532-1540*
- Fernandez-Martinez, P., *see* Du, B., *TNS July 2019 1813-1819*
- Ferraro, R., *see* Cecchetto, M., *TNS July 2019 1532-1540*
- Ferraro, R., Danzeca, S., Cangialosi, C., Alia, R.G., Cerutti, F., Tsinganis, A., Dilillo, L., Brugger, M., and Masi, A., Study of the Impact of the LHC Radiation Environments on the Synergistic Displacement Damage and Ionizing Dose Effect on Electronic Components; *TNS July 2019 1548-1556*
- Ferreira, R.A., *see* Vega, N.A., *TNS Dec. 2019 2417-2421*
- Fiorella, A., *see* Ratti, L., *TNS Feb. 2019 567-574*
- Filthaut, F., *see* Borga, A., *TNS July 2019 993-997*
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- Fleetwood, D., Brown, D., Quinn, H., Esqueda, I.S., Robinson, W., Moss, S., Goiffon, V., and Paillet, P., Comments by the Editors; *TNS June 2019 854*
- Fleetwood, D., Brown, D., Quinn, H., Esqueda, I.S., Robinson, W., Moss, S., Goiffon, V., and Paillet, P., Comments by the Editors; *TNS July 2019 1352*
- Fleetwood, D.M., Brown, D., Quinn, H., Esqueda, I.S., Robinson, W., Moss, S., Goiffon, V., and Paillet, P., Special NSREC 2018 Issue of the IEEE Transactions on Nuclear Science Comments by the Editors; *TNS Jan. 2019 8*
- Fleetwood, D.M., *see* Wang, P., *TNS Jan. 2019 420-427*
- Fleetwood, D.M., *see* Jiang, R., *TNS Jan. 2019 170-176*
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- Fleetwood, D.M., *see* Witczak, S.C., *TNS May 2019 795-800*
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- Fleetwood, D.M., *see* Bonaldo, S., *TNS July 2019 1574-1583*
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- Fleta, C., *see* Prieto-Pena, J., *TNS July 2019 1840-1847*
- Follin, F., *see* de Cataldo, G., *TNS May 2019 763-770*
- Fontana, A., Pazos, S., Aguirre, F., Vega, N., Muller, N., De La Fourniere, E., Silveira, F., Debray, M.E., and Palumbo, F., Pulse Quenching and Charge-Sharing Effects on Heavy-Ion Microbeam Induced ASET in a Full-Custom CMOS OpAmp; *TNS July 2019 1473-1482*
- Foran, B., Mann, C., Peterson, M., Bushmaker, A., Wang, B., Chen, J., Yang, S., and Cronin, S.B., Effects of Proton Radiation-Induced Defects on Optoelectronic Properties of MoS₂; *TNS Jan. 2019 413-419*
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- Formozov, A., *see* Pedretti, D., *TNS July 2019 1151-1158*
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- Gadkari, S.C., *see* Mitra, P., *TNS July 2019 1870-1878*
- Gadkari, S.C., *see* Rawat, S., *TNS Dec. 2019 2440-2445*
- Gadlage, M.J., Bruce, D.I., Ingalls, J.D., Bossev, D.P., McKinney, M., and Kay, M.J., Directional Dependence of Co-60 Irradiation on the Total Dose Response of Flash Memories; *TNS Jan. 2019 148-154*
- Gadlage, M.J., *see* Conway, P.M., *TNS Jan. 2019 466-473*
- Gaillard, R., *see* Alia, R.G., *TNS Jan. 2019 458-465*
- Gaillard, R., *see* Fernandez-Martinez, P., *TNS July 2019 1523-1531*
- Gaillardin, M., *see* Raine, M., *TNS Jan. 2019 352-358*
- Gaillardin, M., Vinet, M., Andrieu, F., Barraud, S., Raine, M., Martinez, M., Duhamel, O., Riffaud, J., Lagutere, T., Marcandella, C., Paillet, P., and Richard, N., Analysis of Nanowire Field-Effect Transistors SET Response: Geometrical Considerations; *TNS July 2019 1410-1417*
- Gaillardin, M., *see* Rostand, N., *TNS July 2019 1628-1633*
- Galet, G., *see* Pedretti, D., *TNS July 2019 1151-1158*
- Galli, D., *see* Colombo, T., *TNS July 2019 1159-1164*
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- Gamberini, E., *see* Borga, A., *TNS July 2019 993-997*
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- Gao, W., *see* Duan, Y., *TNS Aug. 2019 1976-1983*
- Gao, X., *see* Wen, F., *TNS July 2019 1340-1345*
- Gao, Y., *see* Wang, J., *TNS March 2019 609-615*
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- Gatignon, L., *see* Fernandez-Martinez, P., *TNS July 2019 1523-1531*
- Gautam, S., Tamboli, P.K., Patankar, V.H., Roy, K., and Duttgupta, S.P., Sensors Incipient Fault Detection and Isolation Using Kalman Filter and Kullback-Leibler Divergence; *TNS May 2019 782-794*
- Gebbia, G., *see* Giangiacomi, N., *TNS July 2019 1021-1027*
- Geernaert, T., *see* Morana, A., *TNS Jan. 2019 120-124*
- Gehl, M., *see* Hoffman, G.B., *TNS May 2019 801-809*

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- Gerardin, S.**, see Bagatin, M., *TNS Jan. 2019 48-53*
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- Gerardin, S.**, see Bagatin, M., *TNS July 2019 1361-1367*
- Gerardin, S.**, see Bonaldo, S., *TNS July 2019 1574-1583*
- Gerardin, S.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Gerbershagen, A.**, see Alia, R.G., *TNS Jan. 2019 458-465*
- Ghergherehchi, M.**, see Song, H.S., *TNS Aug. 2019 1924-1930*
- Giacomini, G.**, Chen, W., Kuczewski, A., Rumaiz, A.K., and Siddons, D.P., Operational Conditions of Silicon Pixel Arrays for X-Ray Spectroscopy; *TNS Oct. 2019 2245-2251*
- Giammarchi, M.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Giangiacomini, N.**, Alfonsi, F., d'Amen, G., Balbi, G., Falchieri, D., Gabrielli, A., Gebbia, G., Pellegrini, G., and Soverini, D., General Purpose Readout Board π LUP: Overview and Results.; *TNS July 2019 1021-1027*
- Giaz, A.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Gilard, O.**, see York, M.C.A., *TNS June 2019 938-945*
- Gilardoni, S.**, see Alia, R.G., *TNS Jan. 2019 458-465*
- Gilardoni, S.**, see Fernandez-Martinez, P., *TNS July 2019 1523-1531*
- Giordanengo, S.**, see Prieto-Pena, J., *TNS July 2019 1840-1847*
- Giordano, R.**, see Izzo, V., *TNS July 2019 1028-1035*
- Girard, S.**, Alessi, A., Duhamel, O., Trinczek, M., Marin, E., Boukenter, A., Ouerdane, Y., Mekki, J., Garcia Alia, R., Kadi, Y., Brugger, M., Di Francesca, D., Morana, A., Hoehr, C., Paillet, P., Duzenli, C., Kerboub, N., Regh-ioua, I., and Li Vecchi, G., X-Rays, γ -Rays, and Proton Beam Monitoring With Multimode Nitrogen-Doped Optical Fiber; *TNS Jan. 2019 306-311*
- Girard, S.**, see Rizzolo, S., *TNS Jan. 2019 111-119*
- Girard, S.**, see Di Francesca, D., *TNS Jan. 2019 299-305*
- Girard, S.**, see Morana, A., *TNS Jan. 2019 120-124*
- Girard, S.**, see Melin, G., *TNS July 2019 1657-1662*
- Girard, S.**, see Sabatier, C., *TNS July 2019 1651-1656*
- Glasgow, D.**, see Skutnik, S., *TNS Sept. 2019 2123-2135*
- Glenn, S.M.**, see Champley, K.M., *TNS March 2019 674-686*
- Gnatyuk, V.A.**, see Sklyarchuk, V.M., *TNS Sept. 2019 2140-2144*
- Goeders, J.**, see Bohman, M., *TNS Jan. 2019 223-232*
- Goiffon, V.**, see Fleetwood, D.M., *TNS Jan. 2019 8*
- Goiffon, V.**, see Rizzolo, S., *TNS Jan. 2019 111-119*
- Goiffon, V.**, see Le Roch, A., *TNS March 2019 616-624*
- Goiffon, V.**, see Fleetwood, D., *TNS June 2019 854*
- Goiffon, V.**, see Fleetwood, D., *TNS July 2019 1352*
- Goiffon, V.**, see Belloir, J., *TNS July 2019 1671-1681*
- Gola, A.**, see Tamulaitis, G., *TNS July 2019 1879-1888*
- Goldsmann, N.**, see Akturk, A., *TNS July 2019 1828-1832*
- Goley, P.S.**, Kaynak, M., Lischke, S., Mai, C., Cressler, J.D., Tzintzarov, G.N., Zeinolabedinzadeh, S., Ildefonso, A., Motoki, K., Jiang, R., Zhang, E.X., Fleetwood, D.M., and Zimmermann, L., Total Ionizing Dose Effects in 70-GHz Bandwidth Photodiodes in a SiGe Integrated Photonics Platform; *TNS Jan. 2019 125-133*
- Golovleva, M.**, see Kalliokoski, M., *TNS May 2019 846-851*
- Gomez, F.**, see Prieto-Pena, J., *TNS July 2019 1840-1847*
- Goncalves, B.**, see Santos, B., *TNS July 2019 1324-1329*
- Goncalves, B.**, see Fernandes, A., *TNS July 2019 1318-1323*
- Goncalves, B.**, see Cruz, N., *TNS July 2019 1310-1317*
- Goncalves, B.**, see Correia, M., *TNS Oct. 2019 2282-2285*
- Goncalves, M.**, Fernandes, F., Lamb, I., Rech, P., and Azambuja, J.R., Selective Fault Tolerance for Register Files of Graphics Processing Units; *TNS July 2019 1449-1456*
- Goncalves, P.**, see Pinto, M., *TNS July 2019 1770-1777*
- Gong, D.**, see Zhou, W., *TNS July 2019 1115-1122*
- Gong, G.**, see Zhu, J., *TNS July 2019 1130-1137*
- Gong, H.**, see Wang, P., *TNS Jan. 2019 420-427*
- Gong, H.**, see Jiang, R., *TNS Jan. 2019 170-176*
- Gong, H.**, Waldron, N., Kunert, B., Linten, D., Ni, K., Zhang, E.X., Sternberg, A.L., Kozub, J.A., Alles, M.L., Reed, R.A., Fleetwood, D.M., and Schrimpf, R.D., Pulsed-Laser Induced Single-Event Transients in InGaAs FinFETs on Bulk Silicon Substrates; *TNS Jan. 2019 376-383*
- Gong, H.**, see Liang, C., *TNS Jan. 2019 384-388*
- Gong, H.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Gong, H.**, see Zhou, X., *TNS Nov. 2019 2312-2318*
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- Gotter, T.**, see Melin, G., *TNS July 2019 1657-1662*
- Gouyet, L.**, see Manguet, M., *TNS July 2019 1516-1522*
- Graafsma, H.**, see Hansen, K., *TNS Aug. 2019 1966-1975*
- Grabas, A.**, see Besin, D., *TNS Aug. 2019 2011-2016*
- Grace, C.R.**, Stezelberger, T., and Denes, P., PETAL: A Multichannel Differential ADC Driver for High-Speed CMOS Image Sensors; *TNS June 2019 955-959*
- Grande, A.**, Fiorini, C., Utica, G., Erdinger, F., Fischer, P., and Porro, M., Charge Sensitive Amplifier With Offset-Compensated V-to-I Converter for the Mini-SDD-Based DSSC Detector; *TNS Oct. 2019 2233-2238*
- Grant, E.**, see Radtke, J., *TNS Oct. 2019 2160-2169*
- Grassi, M.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Grecki, M.**, see Cichalewski, W., *TNS Sept. 2019 2145-2152*
- Greenberg, S.**, see Keren, E., *TNS June 2019 946-954*
- Grewing, C.**, see Jokhovets, L., *TNS Aug. 2019 1942-1951*
- Grider, D.**, see Akturk, A., *TNS July 2019 1828-1832*
- Griffin, P.J.**, Uncertainty Characterization of Silicon Damage Metrics; *TNS Jan. 2019 327-336*
- Griffin, P.J.**, Koning, A.J., and Rochman, D., Impact of Nuclear Data Uncertainty in the Modeling of Neutron-Induced Recoil Atom Energy Distributions in Silicon; *TNS July 2019 1719-1729*
- Grima, A.**, Di Castro, M., Masi, A., and Sammut, N., Thermal Study of the Ironless Inductive Position Sensors Installed on the LHC Collimators; *TNS April 2019 688-695*
- Grossmann, M.**, see Carmona, P.F., *TNS July 2019 1280-1286*
- Grossmann, M.**, see Eichin, M., *TNS July 2019 1273-1279*
- Grossner, U.**, see Martinella, C., *TNS July 2019 1702-1709*
- Grybos, P.**, see Kmon, P., *TNS March 2019 664-673*
- Grzegorzolka, M.**, Czuba, K., and Rutkowski, I., Cavity Simulator for European Spallation Source; *TNS July 2019 1254-1261*
- Gu, M.**, see Li, J., *TNS July 2019 1199-1203*
- Gu, M.H.**, see Yu, T., *TNS July 2019 1095-1099*
- Gu, W.**, Wang, D., Tang, X., and Ma, Y., An Improved Gamma Scanning Assay Method for the 400-L Compacted Radioactive Waste Drum Based on the Segmented Equivalent Ring Source; *TNS July 2019 1889-1896*
- Gu, Z.**, see Zhang, D., *TNS Oct. 2019 2215-2219*
- Guardiola, C.**, see Prieto-Pena, J., *TNS July 2019 1840-1847*
- Guatelli, S.**, see James, B., *TNS Jan. 2019 320-326*
- Guatelli, S.**, see Biasi, G., *TNS Jan. 2019 519-527*
- Guazzelli, M.A.**, see Benites, L.A.C., *TNS July 2019 1433-1440*
- Guhel, Y.**, see Petitdidier, S., *TNS May 2019 810-819*
- Gui, P.**, see Miryala, S., *TNS Nov. 2019 2338-2345*
- Guitton, P.**, see Melin, G., *TNS July 2019 1657-1662*
- Gunter, D.**, see Hellfeld, D., *TNS Oct. 2019 2252-2260*
- Guo, C.**, Liang, F., Lin, J., Xu, Y., Sun, L., Liu, W., Liao, S., and Peng, C., Control and Readout Software for Superconducting Quantum Computing; *TNS July 2019 1222-1227*
- Guo, D.**, see Zhou, W., *TNS July 2019 1115-1122*
- Guo, H.**, see Zheng, Q., *TNS June 2019 892-898*
- Guo, H.**, see Luo, Y., *TNS July 2019 1848-1853*
- Guo, Q.**, see Li, X., *TNS Jan. 2019 199-206*
- Guo, Q.**, see Zheng, Q., *TNS April 2019 702-709*
- Guo, Q.**, see Zheng, Q., *TNS June 2019 892-898*
- Guo, Q.**, see Yao, S., *TNS July 2019 1557-1565*
- Guo, X.**, see Chen, W., *TNS June 2019 856-865*
- Guo, X.**, see Li, R., *TNS July 2019 1566-1573*
- Guo, X.**, see Zhao, W., *TNS July 2019 1491-1499*
- Guo, Z.**, see Yu, H., *TNS Dec. 2019 2435-2439*
- Gupta, S.**, see Jagtap, S., *TNS Sept. 2019 2072-2079*

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- Hadad, K.**, see Rafiei, M., *TNS July 2019 1804-1812*
- Haefner, T.D.**, see Kauppila, J.S., *TNS March 2019 635-642*
- Haefner, T.D.**, see Harrington, R.C., *TNS June 2019 932-937*
- Haefner, T.D.**, Reed, R.A., Schrimpf, R.D., Fleetwood, D.M., Keller, R.F., Jiang, R., Sierawski, B.D., Mccurdy, M.W., Zhang, E.X., Mohammed, R.W., Ball, D.R., and Alles, M.L., Comparison of Total-Ionizing-Dose Effects in Bulk and SOI FinFETs at 90 and 295 K; *TNS June 2019 911-917*
- Haefner, T.D.**, see Harrington, R.C., *TNS July 2019 1427-1432*
- Haefner, A.**, see Hellfeld, D., *TNS Oct. 2019 2252-2260*
- Haggerty, J.S.**, see Biro, B., *TNS July 2019 1833-1839*
- Hagino, K.**, Okuno, T., Kayama, K., Amano, Y., Matsumura, H., Mori, K., Takeda, A., Nishioka, Y., Fukuda, K., Hida, T., Yukumoto, M., Oono, K., Arai, Y., Kurachi, I., Miyoshi, T., Kishimoto, S., Negishi, K., Yarita, K., Kohmura, T., Tsuru, T.G., Tanaka, T., Uchida, H., and Harada, S., Measurement of Charge Cloud Size in X-Ray SOI Pixel Sensors; *TNS July 2019 1897-1905*
- Hajdas, W.**, see Pinto, M., *TNS July 2019 1770-1777*
- Hales, J.M.**, see Ildefonso, A., *TNS Jan. 2019 359-367*
- Hamada, E.**, see Ichikawa, M., *TNS Aug. 2019 2022-2027*
- Han, X.**, see Privat, A., *TNS Jan. 2019 190-198*
- Han, X.**, see Wen, F., *TNS July 2019 1340-1345*
- Han, Z.**, see Zheng, Z., *TNS Oct. 2019 2207-2214*
- Han, Z.J.**, see Yu, T., *TNS July 2019 1095-1099*
- Hands, A.**, see Sandberg, I., *TNS July 2019 1761-1769*
- Hansen, D.L.**, Escala, E., Hillman, R., Meraz, F., Montoya, J., Paulet, P., Serpell, E., Taty, P., and Williamson, G., Correlation of Single-Board Computer Ground-Test Data and On-Orbit Upset Rates From the Gaia Mission; *TNS Jan. 2019 270-275*
- Hansen, K.**, Wunderer, C., Lemke, M., Graafsma, H., Schlosser, I., Manghisoni, M., Riceputi, E., Aschauer, S., Struder, L., Soldat, J., Tangl, M., Klar, H., Erdinger, F., Kugel, A., Fischer, P., Andricek, L., Ninkovic, J., Turcato, M., Porro, M., Kalavakuru, P., Reckleben, C., Venzmer, A., Wustenhagen, E., Schappeit, R., Zeides, O., and Okrent, F., Qualification and Integration Aspects of the DSSC Mega-Pixel X-Ray Imager; *TNS Aug. 2019 1966-1975*
- Hao, Y.**, see Lv, L., *TNS June 2019 886-891*
- Harada, S.**, see Hagino, K., *TNS July 2019 1897-1905*
- Haran, A.**, see Keren, E., *TNS June 2019 946-954*
- Hardcastle, N.**, see Biasi, G., *TNS Jan. 2019 519-527*
- Hardy, W.**, see Taggart, J.L., *TNS Jan. 2019 69-76*
- Harkonen, J.**, see Kalliokoski, M., *TNS May 2019 846-851*
- Harmon, N.J.**, see Ashton, J.P., *TNS Jan. 2019 428-436*
- Harms, J.**, see Ildefonso, A., *TNS Jan. 2019 359-367*
- Harrington, R.C.**, see Kauppila, J.S., *TNS March 2019 635-642*
- Harrington, R.C.**, Massengill, L.W., Kauppila, J.S., Maharrey, J.A., Haefner, T.D., Zhang, E.X., Ball, D.R., Nsengiyumva, P., Alles, M.L., and Bhuvu, B.L., Exploiting SEU Data Analysis to Extract Fast SET Pulses; *TNS June 2019 932-937*
- Harrington, R.C.**, Massengill, L.W., Kauppila, J.S., Maharrey, J.A., Haefner, T.D., Sternberg, A.L., Zhang, E.X., Ball, D.R., Nsengiyumva, P., and Bhuvu, B.L., Empirical Modeling of FinFET SEU Cross Sections Across Supply Voltage; *TNS July 2019 1427-1432*
- Harvey, M.**, see Jones, M., *TNS Dec. 2019 2430-2434*
- Hasan, S.M.R.**, see Zhang, C., *TNS July 2019 1906-1915*
- Hashimoto, M.**, see Abe, S., *TNS July 2019 1374-1380*
- Hashimoto, M.**, see Manabe, S., *TNS July 2019 1398-1403*
- Hashimoto, M.**, see Liao, W., *TNS July 2019 1390-1397*
- Hayashi, N.**, see Kobayashi, D., *TNS Jan. 2019 155-162*
- He, B.**, see Wang, Z., *TNS June 2019 880-885*
- He, C.**, see Li, X., *TNS Jan. 2019 199-206*
- He, C.**, see Zheng, Q., *TNS April 2019 702-709*
- He, C.**, see Zheng, Q., *TNS June 2019 892-898*
- He, C.**, see Li, R., *TNS July 2019 1566-1573*
- He, C.**, see Zhao, W., *TNS July 2019 1491-1499*
- He, C.**, see Yao, S., *TNS July 2019 1557-1565*
- He, G.Z.**, see Yu, T., *TNS July 2019 1095-1099*
- He, M.**, see Liu, B., *TNS Jan. 2019 528-535*
- He, Y.**, see Zhang, Z., *TNS July 2019 1368-1373*
- He, Y.**, see Zhou, L., *TNS July 2019 1916-1920*
- He, Y.**, see Peng, C., *TNS Oct. 2019 2170-2178*
- He, Y.C.**, see Yu, T., *TNS July 2019 1095-1099*
- He, Y.F.**, see Yu, T., *TNS July 2019 1095-1099*
- Hellfeld, D.**, Joshi, T.H.Y., Bandstra, M.S., Cooper, R.J., Quiter, B.J., and Vetter, K., Gamma-Ray Point-Source Localization and Sparse Image Reconstruction Using Poisson Likelihood; *TNS Sept. 2019 2088-2099*
- Hellfeld, D.**, Barton, P., Gunter, D., Haefner, A., Mihailescu, L., and Vetter, K., Real-Time Free-Moving Active Coded Mask 3D Gamma-Ray Imaging; *TNS Oct. 2019 2252-2260*
- Hemmick, T.K.**, see Azmoun, B., *TNS Aug. 2019 1984-1992*
- Hengzhou, Y.**, Jianjun, C., Bin, L., Yaqing, C., Xi, C., and Yang, G., An SEU/SET-Tolerant Phase Frequency Detector With Double-Loop Self-Sampling Technology for Clock Data Recovery; *TNS July 2019 1483-1490*
- Hennig, W.**, Thomas, V., Hoover, S., and Delaune, O., Network Time Synchronization of the Readout Electronics for a New Radioactive Gas Detection System; *TNS July 2019 1182-1189*
- Herbst, U.**, see Schacht, J., *TNS July 2019 1262-1266*
- Hero, A.**, see Zhu, H., *TNS Oct. 2019 2265-2274*
- Herzkamp, M.**, see Jokhovets, L., *TNS Aug. 2019 1942-1951*
- Heynderickx, D.**, see Sandberg, I., *TNS July 2019 1761-1769*
- Hida, T.**, see Hagino, K., *TNS July 2019 1897-1905*
- Hildebrandt, E.**, see Petzold, S., *TNS July 2019 1715-1718*
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- Hinde, D.**, see James, B., *TNS Jan. 2019 320-326*
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- Hoehr, C.**, see Girard, S., *TNS Jan. 2019 306-311*
- Hoff, J.R.**, see Miryala, S., *TNS Nov. 2019 2338-2345*
- Hoffman, G.B.**, Swanson, S.E., Long, C.M., Derose, C.T., Lentine, A.L., Gehl, M., Martinez, N.J., Trotter, D.C., Starbuck, A.L., Pomerene, A., Dallo, C.M., Hood, D., and Dodd, P.E., The Effect of Gamma Radiation Exposure on Active Silicon Photonic Device Performance Metrics; *TNS May 2019 801-809*
- Hoheisel, R.**, see Warner, J.H., *TNS Jan. 2019 290-298*
- Holbert, K.**, see Taggart, J.L., *TNS Jan. 2019 69-76*
- Holm, S.**, see Miryala, S., *TNS Nov. 2019 2338-2345*
- Holt, J.S.**, Hughart, D.R., Marinella, M.J., Yang-Scharlotta, J., Cady, N.C., Alamgir, Z., Beckmann, K., Suguitan, N., Russell, S., Iler, E., Bakhrum, H., Bielejec, E.S., and Jacobs-Gedrim, R.B., Comparison of Radiation Effects in Custom and Commercially Fabricated Resistive Memory Devices; *TNS Dec. 2019 2398-2407*
- Honda, R.**, see Ichikawa, M., *TNS Aug. 2019 2022-2027*
- Hong, D.**, see Wang, Y., *TNS July 2019 1064-1069*
- Hong, Z.**, see Lu, B., *TNS Feb. 2019 597-608*
- Honkamaa, T.**, see Belanger-Champagne, C., *TNS Jan. 2019 487-496*
- Hood, D.**, see Hoffman, G.B., *TNS May 2019 801-809*
- Hoover, A.S.**, see Becker, D.T., *TNS Dec. 2019 2355-2363*
- Hoover, S.**, see Hennig, W., *TNS July 2019 1182-1189*
- Hostettler, M.**, see de Cataldo, G., *TNS May 2019 763-770*
- Hou, X.**, see Pan, S., *TNS Feb. 2019 549-556*
- Howard, J.T.**, Barth, E.J., Schrimpf, R.D., Reed, R.A., Adams, L.C., Vibbert, D., and Witulski, A.F., Methodology for Identifying Radiation Effects in Robotic Systems With Mechanical and Control Performance Variations; *TNS Jan. 2019 184-189*
- Hu, C.**, see Yang, F., *TNS Jan. 2019 506-511*
- Hu, C.**, see Yang, F., *TNS Jan. 2019 512-518*
- Hu, C.**, Xu, C., Zhang, L., Zhang, Q., and Zhu, R., Development of Yttrium-Doped BaF₂ Crystals for Future HEP Experiments; *TNS July 2019 1854-1860*
- Hu, D.**, see Zhou, X., *TNS Nov. 2019 2312-2318*
- Hu, G.**, see Zheng, Z., *TNS Feb. 2019 585-596*
- Hu, J.**, see Chen, H., *TNS Aug. 2019 2005-2010*
- Hu, K.**, see Lu, H., *TNS Aug. 2019 2028-2032*
- Hu, K.**, see Cheng, X., *TNS Sept. 2019 2107-2113*
- Hu, Q.**, see Sun, X., *TNS July 2019 1330-1334*
- Hu, Y.**, see Zheng, Z., *TNS Feb. 2019 585-596*

Hu, Z., *see* Xie, X., *TNS March 2019 625-634*
Huang, G., *see* Zhou, W., *TNS July 2019 1115-1122*
Huang, H.X., *see* Yu, T., *TNS July 2019 1095-1099*
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Huang, X., *see* Li, J., *TNS July 2019 1194-1198*
Huang, X.R., *see* Yu, T., *TNS July 2019 1095-1099*
Huang, Y., *see* Zhang, Z., *TNS July 2019 1368-1373*
Huang, Y., *see* Peng, C., *TNS Oct. 2019 2170-2178*
Huang, Z., *see* Zhou, L., *TNS July 2019 1916-1920*
Hubert, G., *see* Artola, L., *TNS Jan. 2019 452-457*
Hubert, G., and Artola, L., Experimental Evidence of Ground Albedo Neutron Impact on Soft Error Rate for Nanoscale Devices; *TNS Jan. 2019 262-269*
Hubert, G., *see* Rostand, N., *TNS July 2019 1628-1633*
Hubert, G., *see* Al Youssef, A., *TNS July 2019 1510-1515*
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Hulot, G., *see* Bourdarie, S., *TNS July 2019 1746-1752*
Hur, M.G., *see* Song, H.S., *TNS Aug. 2019 1924-1930*
Hwang, C., Ko, Y., Kim, M., and Lim, J., Comment on "Radial Dependence of Induced Current Density and Small Pixel Effect in Parallel-Plate Detectors" *TNS Sept. 2019 2153-2155*
Hwang, S., Yu, H., Bolotnikov, A.E., James, R.B., and Kim, K., Anomalous Te Inclusion Size and Distribution in CdZnTeSe; *TNS Nov. 2019 2329-2332*

I

Ibrahim, M.A., *see* Abdelwahab, M.S., *TNS July 2019 1642-1650*
Ichida, M., *see* Inome, Y., *TNS Aug. 2019 1993-1997*
Ichikawa, M., Naruki, M., Ozawa, K., Sendai, H., Suzuki, K.N., Tanaka, M., Uchida, T., Yokkaichi, S., Takahashi, T.N., Aoki, K., Ashikaga, S., Hamada, E., Honda, R., Igarashi, Y., Ikeno, M., and Kawama, D., Trigger Merging Module for the J-PARC E16 Experiment; *TNS Aug. 2019 2022-2027*
IEEE Nuclear and Plasma Sciences Society, Announcement of New Editor-in-Chief for IEEE Transactions on Nuclear Science; *TNS April 2019 687*
Igarashi, Y., *see* Ichikawa, M., *TNS Aug. 2019 2022-2027*
Ikeno, M., *see* Ichikawa, M., *TNS Aug. 2019 2022-2027*
Ildefonso, A., *see* Omprakash, A.P., *TNS Jan. 2019 389-396*
Ildefonso, A., Warner, J.H., Harms, J., Erickson, A., Voss, K., Ferlet-Cavrois, V., Cressler, J.D., Fleetwood, Z.E., Tzintzarov, G.N., Hales, J.M., Nergui, D., Frounchi, M., Khachatryan, A., Buchner, S.P., and Mcmorrow, D., Optimizing Optical Parameters to Facilitate Correlation of Laser- and Heavy-Ion-Induced Single-Event Transients in SiGe HBTs; *TNS Jan. 2019 359-367*
Ildefonso, A., *see* Goley, P.S., *TNS Jan. 2019 125-133*
Iler, E., *see* Holt, J.S., *TNS Dec. 2019 2398-2407*
Inadama, N., Murayama, H., Nishikido, F., Ohi, J., and Yamaya, T., Improvement of a PET Detector Performance by Setting Reflectors in Parallel With PMT Face; *TNS Jan. 2019 497-505*
Infantino, A., *see* Di Francesca, D., *TNS Jan. 2019 299-305*
Ingalls, J.D., *see* Gadlage, M.J., *TNS Jan. 2019 148-154*
Ingalls, J.D., *see* Conway, P.M., *TNS Jan. 2019 466-473*
Inguibert, C., *see* Caron, P., *TNS July 2019 1404-1409*
Inome, Y., Yamamoto, T., Sunada, Y., Choushi, Y., Ichida, M., Mirzoyan, R., Ohoka, H., Saito, T., Tamura, K., and Teshima, M., A 100-ps Pulse Laser as a Calibration Source; *TNS Aug. 2019 1993-1997*
Insolia, A., *see* Pedretti, D., *TNS July 2019 1151-1158*
Isakov, A., *see* Kushpil, S., *TNS Nov. 2019 2319-2323*
Ishii, S., *see* Kobayashi, D., *TNS Jan. 2019 155-162*
Isocrate, R., *see* Pedretti, D., *TNS July 2019 1151-1158*

Izzo, V., Aloisio, A., Giordano, R., Perrella, S., and Vari, R., A New Interface Board for the Level-1 Muon Barrel Trigger Upgrade of the ATLAS Experiment; *TNS July 2019 1028-1035*

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Jablonski, G., *see* Makowski, D., *TNS July 2019 1056-1063*
Jacobs-Gedrim, R.B., Barnaby, H.J., Marinella, M.J., Hughart, D.R., Agarwal, S., Vizkelethy, G., Bielejec, E.S., Vaandrager, B.L., Swanson, S.E., Knisely, K.E., and Taggart, J.L., Training a Neural Network on Analog TaO_x ReRAM Devices Irradiated With Heavy Ions: Effects on Classification Accuracy Demonstrated With CrossSim; *TNS Jan. 2019 54-60*
Jacobs-Gedrim, R.B., *see* Taggart, J.L., *TNS Jan. 2019 69-76*
Jacobs-Gedrim, R.B., *see* Holt, J.S., *TNS Dec. 2019 2398-2407*
Jagtap, S., Amnadwar, S., Rudrapati, S., and Gupta, S., A Single-Event Transient-Tolerant High-Frequency CMOS Quadrature Phase Oscillator; *TNS Sept. 2019 2072-2079*
James, B., Lerch, M., Prokopovich, D.A., Reinhard, M.I., Povoli, M., Kok, A., Hinde, D., Dasgupta, M., Stuchbery, A., Perevertaylo, V., Rosenfeld, A.B., Tran, L.T., Vohradsky, J., Bolst, D., Pan, V., Carr, M., Guatelli, S., Pogosso, A., and Petasecca, M., SOI Thin Microdosimeter Detectors for Low-Energy Ions and Radiation Damage Studies; *TNS Jan. 2019 320-326*
James, B., *see* Bohman, M., *TNS Jan. 2019 223-232*
James, R.B., *see* Rejhon, M., *TNS Aug. 2019 1952-1958*
James, R.B., *see* Hwang, S., *TNS Nov. 2019 2329-2332*
Jankowski, J., Prokopowicz, R., Pytel, K., and El-Ahmar, S., Toward the Development of an InSb-Based Neutron-Resistant Hall Sensor; *TNS June 2019 926-931*
Janvier, N., *see* Mansour, W., *TNS July 2019 1138-1143*
Javanainen, A., *see* Ball, D.R., *TNS Jan. 2019 337-343*
Javanainen, A., *see* Tali, M., *TNS Jan. 2019 437-443*
Javanainen, A., *see* Johnson, R.A., *TNS July 2019 1694-1701*
Javanainen, A., *see* Martinella, C., *TNS July 2019 1702-1709*
Jazaeri, F., *see* Zhang, C., *TNS Jan. 2019 38-47*
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Ji, W., *see* McPherson, J.A., *TNS Jan. 2019 474-481*
Ji, X.L., *see* Yu, T., *TNS July 2019 1095-1099*
Ji, X.Y., *see* Yu, T., *TNS July 2019 1095-1099*
Ji, Y., Lim, T., Choi, H., Chung, K.H., and Kang, M.J., Development and Performance of a Multipurpose System for the Environmental Radiation Survey Based on a LaBr₃(Ce) Detector; *TNS Dec. 2019 2422-2429*
Ji, Z.S., *see* Wang, Y., *TNS July 2019 1335-1339*
Jia, M., *see* Wang, Z., *TNS Aug. 2019 1998-2004*
Jia, Y., *see* Zhou, X., *TNS Nov. 2019 2312-2318*
Jiang, H.Y., *see* Yu, T., *TNS July 2019 1095-1099*
Jiang, J., *see* Cho, S., *TNS May 2019 771-781*
Jiang, K., *see* Blackmore, E., *TNS Jan. 2019 276-281*
Jiang, R., Zhang, E.X., McCurdy, M.W., Wang, P., Gong, H., Yan, D., Schrimpf, R.D., and Fleetwood, D.M., Dose-Rate Dependence of the Total-Ionizing-Dose Response of GaN-Based HEMTs; *TNS Jan. 2019 170-176*
Jiang, R., *see* Goley, P.S., *TNS Jan. 2019 125-133*
Jiang, R., *see* Haeffner, T.D., *TNS June 2019 911-917*
Jiang, R., *see* Wang, P., *TNS July 2019 1584-1591*
Jiang, R., *see* Zhao, S.E., *TNS July 2019 1599-1605*
Jiang, W., Huang, X., Cao, P., Li, C., Wang, J., Li, J., Yuan, J., and An, Q., Readout Electronics for CBM-TOF Supermodule Quality Evaluation; *TNS July 2019 1190-1193*
Jiang, W., *see* Li, C., *TNS July 2019 1042-1047*
Jiang, W., *see* Yu, T., *TNS July 2019 1095-1099*
Jiang, W., *see* Li, J., *TNS July 2019 1194-1198*
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Jin, K., see Zhou, W., *TNS July 2019 1115-1122*
Jin, X., see Bonaldo, S., *TNS Jan. 2019 82-90*
Jin, X., see Chen, W., *TNS June 2019 856-865*
Jin, X., see Bonaldo, S., *TNS July 2019 1574-1583*
Jing, H.T., see Yu, T., *TNS July 2019 1095-1099*
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Johansson, H.T., see Munch, M., *TNS Feb. 2019 575-584*
Johnson, R.A., see Ball, D.R., *TNS Jan. 2019 337-343*
Johnson, R.A., Kozub, J.A., Lauenstein, J., Javanainen, A., Witulski, A.F., Ball, D.R., Galloway, K.F., Sternberg, A.L., Zhang, E., Ryder, L.D., Reed, R.A., and Schrimpf, R.D., Enhanced Charge Collection in SiC Power MOSFETs Demonstrated by Pulse-Laser Two-Photon Absorption SEE Experiments; *TNS July 2019 1694-1701*
Jokhovets, L., Streun, M., Waasen, S.V., Wintz, P., Erven, A., Grewing, C., Herzkamp, M., Kulesa, P., Ohm, H., Pysz, K., Ritman, J., and Serdyuk, V., Improved Rise Approximation Method for Pulse Arrival Timing; *TNS Aug. 2019 1942-1951*
Jones, M., Harvey, M., Bertsche, W., Murray, A.J., and Appleby, R.B., Measuring the Gain of a Microchannel Plate/Phosphor Assembly Using a Convolutional Neural Network; *TNS Dec. 2019 2430-2434*
Joplin, M., see Patel, B., *TNS Jan. 2019 61-68*
Joshi, T.H., see Bilton, K.J., *TNS May 2019 827-837*
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Kadi, Y., see Girard, S., *TNS Jan. 2019 306-311*
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Kalavakuru, P., see Hansen, K., *TNS Aug. 2019 1966-1975*
Kalita, H., see Wang, P., *TNS July 2019 1584-1591*
Kalliokoski, M., Winkler, A., Karadzhinova-Ferrer, A., Harkonen, J., Brucken, E., Golovleva, M., Gadda, A., Litichevskiy, V., Luukka, P., and Ott, J., Effects of Defects to the Performance of CdTe Pad Detectors in IBIC Measurements; *TNS May 2019 846-851*
Kallman, J.S., see Champley, K.M., *TNS March 2019 674-686*
Kalyani, see Tyagi, M., *TNS April 2019 724-728*
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Karadzhinova-Ferrer, A., see Kalliokoski, M., *TNS May 2019 846-851*
Karatay, A., and Yaman, F., Electromagnetic Simulations of Mechanical Imperfections for Accelerator Cavities; *TNS Nov. 2019 2295-2304*
Karcher, N., see Sander, O., *TNS July 2019 1204-1209*
Karsai, G., see Witulski, A.F., *TNS July 2019 1634-1641*
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Kastriotou, M., see Fernandez-Martinez, P., *TNS July 2019 1523-1531*
Kastriotou, M., see Du, B., *TNS July 2019 1813-1819*
Kato, T., Yamazaki, T., Saito, N., and Matsuyama, H., Neutron-Induced Multiple-Cell Upsets in 20-nm Bulk SRAM: Angular Sensitivity and Impact of Multiwell Potential Perturbation; *TNS July 2019 1381-1389*
Kauppila, J., see Witulski, A.F., *TNS July 2019 1634-1641*
Kauppila, J.S., Ball, D.R., Maharrey, J.A., Harrington, R.C., Haeffner, T.D., Sternberg, A.L., Alles, M.L., and Massengill, L.W., A Bias-Dependent Single-Event-Enabled Compact Model for Bulk FinFET Technologies; *TNS March 2019 635-642*
Kauppila, J.S., see Harrington, R.C., *TNS June 2019 932-937*
Kauppila, J.S., see Harrington, R.C., *TNS July 2019 1427-1432*
Kawama, D., see Ichikawa, M., *TNS Aug. 2019 2022-2027*
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Kerboub, N., see Girard, S., *TNS Jan. 2019 306-311*
Kerboub, N., see Fernandez-Martinez, P., *TNS July 2019 1523-1531*
Kerboub, N., Rauch, J., Alia, R.G., Mekki, J., Bezerra, F., Monteuiis, A., Fernandez-Martinez, P., Danzeca, S., Brugger, M., and Standarovski, D., Comparison Between In-flight SEL Measurement and Ground Estimation Using Different Facilities; *TNS July 2019 1541-1547*
Keren, E., Greenberg, S., Yitzhak, N.M., David, D., Refaeli, N., and Haran, A., Characterization and Mitigation of Single-Event Transients in Xilinx 45-nm SRAM-Based FPGA; *TNS June 2019 946-954*
Khachatryan, A., see Cho, M., *TNS Jan. 2019 240-247*
Khachatryan, A., see Omprakash, A.P., *TNS Jan. 2019 389-396*
Khachatryan, A., see Ildefonso, A., *TNS Jan. 2019 359-367*
Khachatryan, A., Brewes, D.L., Roche, N.J., Buchner, S.P., Koehler, A.D., Anderson, T.J., McMorro, D., Lalumondiere, S.D., Bonsall, J.P., and Dillingham, E.C., Investigation of Single-Event Transients in AlGaIn/GaN MIS-Gate HEMTs Using a Focused X-Ray Beam; *TNS Jan. 2019 368-375*
Khachatryan, A., Brewes, D.L., Buchner, S., Koehler, A., Affouda, C., McMorro, D., LaLumondiere, S.D., Dillingham, E.C., Bonsall, J.P., and Scofield, A.C., The Effect of the Gate-Connected Field Plate on Single-Event Transients in AlGaIn/GaN Schottky-Gate HEMTs; *TNS July 2019 1682-1687*
Khai, B.T., Ajimura, S., Kanagawa, K., Maeda, T., Nomachi, M., Sugaya, Y., Suzuki, K., and Tsuzuki, M., μ TCA DAQ System and Parallel Reading in CANDLES Experiment; *TNS July 2019 1174-1181*
Khellah, M., see Kumar, S., *TNS June 2019 918-925*
Kibar, O.O., Mohan, P., Rech, P., and Mai, K., Evaluating the Impact of Repetition, Redundancy, Scrubbing, and Partitioning on 28-nm FPGA Reliability Through Neutron Testing; *TNS Jan. 2019 248-254*
Kierstead, J., see Biro, B., *TNS July 2019 1833-1839*
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Kim, H.J., see Rawat, S., *TNS Dec. 2019 2440-2445*
Kim, H.S., see Song, H.S., *TNS Aug. 2019 1924-1930*
Kim, H.S., Na, M., Ok, J.G., Kim, G., and Ye, S., Development of the Hemispherical Rotational Modulation Collimator Imaging System; *TNS Sept. 2019 2114-2122*
Kim, K., see Hwang, S., *TNS Nov. 2019 2329-2332*
Kim, M., see Hwang, C., *TNS Sept. 2019 2153-2155*
Kim, W., see Carlton, A., *TNS Jan. 2019 255-261*
Kim, W., see Adell, P.R., *TNS Jan. 2019 163-169*
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Kishimoto, S., see Hagino, K., *TNS July 2019 1897-1905*
Klar, H., see Hansen, K., *TNS Aug. 2019 1966-1975*
Klein, B.A., see Martinez, M.J., *TNS Jan. 2019 344-351*
Kmon, P., Deptuch, G., Fahim, F., Grybos, P., Maj, P., Szczygiel, R., and Zimmerman, T., Active Feedback With Leakage Current Compensation for Charge Sensitive Amplifier Used in Hybrid Pixel Detector; *TNS March 2019 664-673*
Knisely, K.E., see Jacobs-Gedrim, R.B., *TNS Jan. 2019 54-60*
Knowles, J., see Skutnik, S., *TNS Sept. 2019 2123-2135*
Ko, Y., see Hwang, C., *TNS Sept. 2019 2153-2155*
Kobayashi, D., Kusano, M., Narita, T., Ishii, S., Masukawa, K., Hayashi, N., Hirose, K., Kakehashi, Y., Kawasaki, O., Makino, T., Ohshima, T., Matsuura, D., and Mori, Y., Process Variation Aware Analysis of SRAM SEU Cross Sections Using Data Retention Voltage; *TNS Jan. 2019 155-162*
Kobayashi, K., see Yamada, K., *TNS July 2019 1418-1426*
Koehler, A., see Khachatryan, A., *TNS July 2019 1682-1687*
Koehler, A.D., see Khachatryan, A., *TNS Jan. 2019 368-375*
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- Kohmura, T.**, see Hagino, K., *TNS July 2019 1897-1905*
- Kojima, K.**, see Yamada, K., *TNS July 2019 1418-1426*
- Kok, A.**, see James, B., *TNS Jan. 2019 320-326*
- Konig, S.**, see Eichin, M., *TNS July 2019 1273-1279*
- Koning, A.J.**, see Griffin, P.J., *TNS July 2019 1719-1729*
- Kopmann, A.**, see Tan Jerome, N., *TNS July 2019 1296-1303*
- Korjik, M.**, Brinkmann, K., Dosovitskiy, G., Dormenev, V., Fedorov, A., Kozlov, D., Mechinsky, V., and Zaunick, H., Compact and Effective Detector of the Fast Neutrons on a Base of Ce-doped $Gd_3Al_2Ga_3O_{12}$ Scintillation Crystal; *TNS Jan. 2019 536-540*
- Korzhih, M.**, see Tamulaitis, G., *TNS July 2019 1879-1888*
- Kowal, P.J.**, see McPherson, J.A., *TNS Jan. 2019 474-481*
- Kozicki, M.N.**, see Taggart, J.L., *TNS Jan. 2019 69-76*
- Kozlov, D.**, see Korjik, M., *TNS Jan. 2019 536-540*
- Kozlov, D.**, see Tamulaitis, G., *TNS July 2019 1879-1888*
- Kozub, J.A.**, see Gong, H., *TNS Jan. 2019 376-383*
- Kozub, J.A.**, see Johnson, R.A., *TNS July 2019 1694-1701*
- Kraxner, A.**, see Olantera, L., *TNS July 2019 1663-1670*
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- Kristukat, C.**, see Vega, N.A., *TNS Dec. 2019 2417-2421*
- Krizek, F.**, see Kushpil, S., *TNS Nov. 2019 2319-2323*
- Kromer, O.**, see Sander, O., *TNS July 2019 1204-1209*
- Kron, T.**, see Biasi, G., *TNS Jan. 2019 519-527*
- Kuang, J.**, see Wang, Y., *TNS Oct. 2019 2275-2281*
- Kuboyama, S.**, Mizuta, E., Nakada, Y., Shindou, H., Michez, A., Boch, J., Saigne, F., and Touboul, A., Thermal Runaway in SiC Schottky Barrier Diodes Caused by Heavy Ions; *TNS July 2019 1688-1693*
- Kuboyama, S.**, see Takeuchi, K., *TNS July 2019 1355-1360*
- Kuboyama, S.**, Mizuta, E., Nakada, Y., and Shindou, H., Physical Analysis of Damage Sites Introduced by SEGR in Silicon Vertical Power MOSFETs and Implications for Postirradiation Gate-Stress Test; *TNS July 2019 1710-1714*
- Kuczewski, A.**, see Giacomini, G., *TNS Oct. 2019 2245-2251*
- Kugel, A.**, see Hansen, K., *TNS Aug. 2019 1966-1975*
- Kulessa, P.**, see Jikhovets, L., *TNS Aug. 2019 1942-1951*
- Kulhar, M.**, Dhoot, K., and Pandya, A., Gamma Dose Rate Measurement Using RadFET; *TNS Oct. 2019 2220-2228*
- Kumar, A.V.**, see Mitra, P., *TNS July 2019 1870-1878*
- Kumar, C.I.**, and Anand, B., A Highly Reliable and Energy-Efficient Triple-Node-Upset-Tolerant Latch Design; *TNS Oct. 2019 2196-2206*
- Kumar, S.**, Tschanz, J., De, V., Kim, C.H., Cho, M., Eversson, L., Tang, Q., Meinerzhagen, P., Malavasi, A., Lake, D., Tokunaga, C., and Khellah, M., Analysis of Neutron-Induced Multibit-Upset Clusters in a 14-nm Flip-Flop Array; *TNS June 2019 918-925*
- Kunert, B.**, see Gong, H., *TNS Jan. 2019 376-383*
- Kunert, B.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Kurachi, L.**, see Hagino, K., *TNS July 2019 1897-1905*
- Kurimoto, Y.**, see Shimogawa, T., *TNS July 2019 1236-1241*
- Kurimoto, Y.**, Shimogawa, T., and Naito, D., Real-Time Betatron Tune Correction With the Precise Measurement of Magnet Current; *TNS July 2019 1036-1041*
- Kusano, M.**, see Kobayashi, D., *TNS Jan. 2019 155-162*
- Kushpil, S.**, Krizek, F., and Isakov, A., Recent Results From Beam Tests of the ALPIDE Pixel Chip for the Upgrade of the ALICE Inner Tracker; *TNS Nov. 2019 2319-2323*
- L**
- Lacoe, R.**, Conference Comments by the General Chair; *TNS Jan. 2019 5-7*
- Lacord, J.**, see Rostand, N., *TNS July 2019 1628-1633*
- Lagarde, D.**, see Mauguet, M., *TNS July 2019 1516-1522*
- Lagutere, T.**, see Raine, M., *TNS Jan. 2019 352-358*
- Lagutere, T.**, see Gaillardin, M., *TNS July 2019 1410-1417*
- Lai, C.**, see Peng, C., *TNS Oct. 2019 2170-2178*
- Lai, P.**, see Yang, Z., *TNS Aug. 2019 1931-1941*
- Lake, D.**, see Kumar, S., *TNS June 2019 918-925*
- Lalumondiere, S.D.**, see Khachatryan, A., *TNS Jan. 2019 368-375*
- LaLumondiere, S.D.**, see Khachatryan, A., *TNS July 2019 1682-1687*
- Lamb, I.**, see Goncalves, M., *TNS July 2019 1449-1456*
- Langlois, M.S.**, see Witczak, S.C., *TNS May 2019 795-800*
- Lanni, F.**, see Besin, D., *TNS Aug. 2019 2011-2016*
- Laqua, H.**, see Schacht, J., *TNS June 2019 969-973*
- Latorre, S.**, see Besin, D., *TNS Aug. 2019 2011-2016*
- Lauenstein, J.**, see Ball, D.R., *TNS Jan. 2019 337-343*
- Lauenstein, J.**, see Johnson, R.A., *TNS July 2019 1694-1701*
- Lazaro, D.**, see Sicard, A., *TNS July 2019 1738-1745*
- Lazzaroni, M.**, see Besin, D., *TNS Aug. 2019 2011-2016*
- Le Roch, A.**, Virmontois, C., Paillet, P., Belloir, J., Rizzolo, S., Pace, F., Durnez, C., Magnan, P., and Goiffon, V., Radiation-Induced Leakage Current and Electric Field Enhancement in CMOS Image Sensor Sense Node Floating Diffusions; *TNS March 2019 616-624*
- Lecoeuche, V.**, see Sabatier, C., *TNS July 2019 1651-1656*
- Leduc, E.**, see Borel, T., *TNS July 2019 1606-1611*
- Lee, J.C.**, see Song, H.S., *TNS Aug. 2019 1924-1930*
- Lee, S.H.**, see Song, H.S., *TNS Aug. 2019 1924-1930*
- Lehmann Miotto, G.**, see Borga, A., *TNS July 2019 993-997*
- Lei, Z.**, see Zhang, Z., *TNS July 2019 1368-1373*
- Lei, Z.**, see Peng, C., *TNS Oct. 2019 2170-2178*
- Lemke, J.**, see Petzold, S., *TNS July 2019 1715-1718*
- Lemke, M.**, see Hansen, K., *TNS Aug. 2019 1966-1975*
- Lemmel, F.**, see Prod'homme, T., *TNS Jan. 2019 134-139*
- Lenahan, P.M.**, see Ashton, J.P., *TNS Jan. 2019 428-436*
- Lenahan, P.M.**, see Myers, K.J., *TNS Jan. 2019 405-412*
- Lendaro, J.**, see Fernandez-Martinez, P., *TNS July 2019 1523-1531*
- Lentaris, G.**, Santos, L., Maragos, K., Soudris, D., Di Capua, F., Campajola, L., Campajola, M., Costantino, A., Furano, G., and Tavoularis, A., TID Evaluation System With On-Chip Electron Source and Programmable Sensing Mechanisms on FPGA; *TNS Jan. 2019 312-319*
- Lentine, A.L.**, see Hoffman, G.B., *TNS May 2019 801-809*
- Lerch, M.**, see James, B., *TNS Jan. 2019 320-326*
- Leroux, P.**, see Prinzie, J., *TNS Jan. 2019 282-289*
- Leroux, P.**, see Aguiar, Y.Q., *TNS July 2019 1465-1472*
- Leroy, C.**, see Bergmann, B., *TNS July 2019 1861-1869*
- Levillain, Y.**, see Prod'homme, T., *TNS Jan. 2019 134-139*
- Li, B.**, see Lu, J., *TNS July 2019 1287-1295*
- Li, B.**, see Yu, T., *TNS July 2019 1095-1099*
- Li, B.**, see Zheng, Z., *TNS Oct. 2019 2207-2214*
- Li, B.**, see Zheng, Z., *TNS Oct. 2019 2207-2214*
- Li, C.**, see Zhu, D., *TNS July 2019 1123-1129*
- Li, C.**, see Yuan, J., *TNS July 2019 1165-1168*
- Li, C.**, see Jiang, W., *TNS July 2019 1190-1193*
- Li, C.**, Huang, X., Cao, P., Zheng, J., Wang, J., Jiang, W., Li, J., and An, Q., Quality Evaluation Electronics for CBM-TOF Super Module; *TNS July 2019 1042-1047*
- Li, C.**, see Li, J., *TNS July 2019 1194-1198*
- Li, C.**, see Shen, Z., *TNS Aug. 2019 2017-2021*
- Li, F.**, see Wang, X., *TNS July 2019 1249-1253*
- Li, F.**, see Zeng, T., *TNS July 2019 1217-1221*
- Li, F.**, see Li, J., *TNS July 2019 1199-1203*
- Li, F.**, see Lu, H., *TNS Aug. 2019 2028-2032*
- Li, G.**, see Ren, Z., *TNS July 2019 1592-1598*
- Li, G.**, see Wen, F., *TNS July 2019 1340-1345*
- Li, H.**, see Zhang, J., *TNS July 2019 1169-1173*
- Li, H.**, see Yang, J., *TNS Sept. 2019 2042-2047*
- Li, J.**, see Zheng, Z., *TNS Feb. 2019 585-596*
- Li, J.**, see Wang, S., *TNS April 2019 696-701*
- Li, J.**, see Li, R., *TNS July 2019 1566-1573*
- Li, J.**, see Zhu, J., *TNS July 2019 1130-1137*
- Li, J.**, see Jiang, W., *TNS July 2019 1190-1193*
- Li, J.**, see Li, C., *TNS July 2019 1042-1047*
- Li, J.**, Gu, M., Li, F., and Zhu, K., An SOA-Based Design of JUNO DAQ Online Software; *TNS July 2019 1199-1203*
- Li, J.**, Huang, X., Cao, P., Li, C., Yuan, J., Jiang, W., Wang, J., and An, Q., Data Acquisition Software for CBM-TOF Super Module Quality Control; *TNS July 2019 1194-1198*

- Li, K.**, see Liang, C., *TNS Jan. 2019 384-388*
- Li, L.**, Shi, J., Liu, X., Yang, J., Wang, X., Li, Z., Zheng, P., and Zeng, G., Current Gain Degradation Model of Displacement Damage for Drift BJTs; *TNS April 2019 716-723*
- Li, L.**, see Yu, T., *TNS July 2019 1095-1099*
- Li, Q.**, see Yu, T., *TNS July 2019 1095-1099*
- Li, Q.**, see Zhou, Y., *TNS Oct. 2019 2239-2244*
- Li, R.**, Wang, C., Chen, W., He, C., Wang, G., Li, J., Bai, X., Cong, P., and Guo, X., Synergistic Effects of TID and ATREE in Vertical NPN Bipolar Transistor; *TNS July 2019 1566-1573*
- Li, S.**, see Pan, S., *TNS Feb. 2019 549-556*
- Li, S.**, see Chen, Y., *TNS July 2019 1304-1309*
- Li, S.**, see Wang, Y., *TNS July 2019 1335-1339*
- Li, T.**, see Shu, L., *TNS April 2019 710-715*
- Li, T.**, see Wang, L., *TNS June 2019 875-879*
- Li, X.**, Yao, S., Lu, W., Guo, Q., Fleetwood, D.M., He, C., Wang, X., Yu, X., Sun, J., and Liu, M., Temperature-Switching During Irradiation as a Test for ELDRS in Linear Bipolar Devices; *TNS Jan. 2019 199-206*
- Li, X.**, Yang, J., Chen, H., Dong, S., and Lv, G., Correlation Between High Dose Rate Irradiation and Low Dose Rate Irradiation for Switched Dose Rate Technique; *TNS July 2019 1612-1619*
- Li, X.**, see Yao, S., *TNS July 2019 1557-1565*
- Li, X.**, see Zhang, Z., *TNS July 2019 1368-1373*
- Li, X.**, see Yu, T., *TNS July 2019 1095-1099*
- Li, X.**, see Yang, J., *TNS Sept. 2019 2042-2047*
- Li, Y.**, see Shu, L., *TNS April 2019 710-715*
- Li, Y.**, see Wang, L., *TNS June 2019 875-879*
- Li, Y.**, see Xie, H., *TNS July 2019 1070-1075*
- Li, Y.**, see Xu, Y., *TNS July 2019 1076-1080*
- Li, Y.**, see Yu, T., *TNS July 2019 1095-1099*
- Li, Z.**, see Li, L., *TNS April 2019 716-723*
- Li, Z.**, see Cao, L., *TNS April 2019 742-751*
- Li, Z.**, see Duan, Y., *TNS Aug. 2019 1976-1983*
- Li, Z.**, see Zhou, Y., *TNS Oct. 2019 2239-2244*
- Li Vecchi, G.**, see Girard, S., *TNS Jan. 2019 306-311*
- Li Vecchi, G.**, see Di Francesca, D., *TNS Jan. 2019 299-305*
- Liang, C.**, Alles, M.L., Reed, R.A., Koester, S.J., Fleetwood, D.M., Schrimpf, R.D., Ma, R., Li, K., Su, Y., Gong, H., Ryder, K.L., Wang, P., Sternberg, A.L., and Zhang, E.X., Laser-Induced Single-Event Transients in Black Phosphorus MOSFETs; *TNS Jan. 2019 384-388*
- Liang, F.**, see Guo, C., *TNS July 2019 1222-1227*
- Liang, H.**, see Zhang, S., *TNS July 2019 1100-1106*
- Liao, S.**, see Lu, Q., *TNS July 2019 1048-1055*
- Liao, S.**, see Guo, C., *TNS July 2019 1222-1227*
- Liao, S.**, see Xie, H., *TNS July 2019 1070-1075*
- Liao, S.**, see Xu, Y., *TNS July 2019 1076-1080*
- Liao, W.**, see Abe, S., *TNS July 2019 1374-1380*
- Liao, W.**, see Manabe, S., *TNS July 2019 1398-1403*
- Liao, W.**, Hashimoto, M., Manabe, S., Abe, S., and Watanabe, Y., Similarity Analysis on Neutron- and Negative Muon-Induced MCUs in 65-nm Bulk SRAM; *TNS July 2019 1390-1397*
- Liao, W.**, Alles, M.L., Zhang, E.X., Fleetwood, D.M., Reed, R.A., Weller, R.A., and Schrimpf, R.D., Monte Carlo Simulation of Displacement Damage in Graphene; *TNS July 2019 1730-1737*
- Libano, F.**, Wilson, B., Anderson, J., Wirthlin, M.J., Cazzaniga, C., Frost, C., and Rech, P., Selective Hardening for Neural Networks in FPGAs; *TNS Jan. 2019 216-222*
- Lichtenwalner, D.J.**, see Akturk, A., *TNS July 2019 1828-1832*
- Lim, J.**, see Hwang, C., *TNS Sept. 2019 2153-2155*
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- Lin, J.**, see Arutt, C.N., *TNS Jan. 2019 397-404*
- Lin, J.**, see Guo, C., *TNS July 2019 1222-1227*
- Lin, J.**, see Xu, Y., *TNS July 2019 1076-1080*
- Lin, Q.**, Yang, M., Wu, Q., Tang, B., and Zhang, X., A Reconstruction Method Through Projection Data Conversion Under the Displaced Detector Scanning for Industrial Cone-Beam CT; *TNS Dec. 2019 2364-2378*
- Lindoso, A.**, see Pena-Fernandez, M., *TNS July 2019 1457-1464*
- Linten, D.**, see Gong, H., *TNS Jan. 2019 376-383*
- Linten, D.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Lippi, I.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Lischke, S.**, see Goley, P.S., *TNS Jan. 2019 125-133*
- Litichevskiy, V.**, see Kalliokoski, M., *TNS May 2019 846-851*
- Liu, B.**, Liu, M., He, M., Ma, Y., and Tuo, X., Model-Based Pileup Events Correction via Kalman-Filter Tunnels; *TNS Jan. 2019 528-535*
- Liu, C.**, see Zhou, W., *TNS July 2019 1115-1122*
- Liu, H.**, see Besin, D., *TNS Aug. 2019 2011-2016*
- Liu, J.**, see Wang, L., *TNS June 2019 875-879*
- Liu, J.**, see Zheng, Q., *TNS June 2019 892-898*
- Liu, J.**, see Zheng, Q., *TNS June 2019 892-898*
- Liu, J.**, see Zhao, S., *TNS July 2019 1107-1114*
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- Liu, J.**, see Yang, C., *TNS July 2019 1088-1094*
- Liu, J.**, see Zhou, W., *TNS July 2019 1115-1122*
- Liu, J.**, see Yan, L., *TNS July 2019 1081-1087*
- Liu, L.**, Ouyang, X., Ruan, J., Bai, S., and Ouyang, X., Performance Comparison Between SiC and Si Neutron Detectors in Deuterium-Tritium Fusion Neutron Irradiation; *TNS April 2019 737-741*
- Liu, M.**, see Li, X., *TNS Jan. 2019 199-206*
- Liu, M.**, see Liu, B., *TNS Jan. 2019 528-535*
- Liu, M.**, see Wang, Z., *TNS June 2019 880-885*
- Liu, M.**, see Yao, S., *TNS July 2019 1557-1565*
- Liu, P.**, see Zhou, Y., *TNS Oct. 2019 2239-2244*
- Liu, R.**, see Ye, Z., *TNS Jan. 2019 97-103*
- Liu, R.**, see Yu, T., *TNS July 2019 1095-1099*
- Liu, S.**, see Zhu, D., *TNS July 2019 1123-1129*
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- Liu, S.**, see Wang, X., *TNS July 2019 1249-1253*
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- Liu, S.**, see Lu, J., *TNS July 2019 1287-1295*
- Liu, S.**, see Yan, L., *TNS July 2019 1081-1087*
- Liu, S.**, see Chen, H., *TNS Aug. 2019 2005-2010*
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- Liu, S.B.**, see Yu, T., *TNS July 2019 1095-1099*
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- Liu, X.**, see Xie, X., *TNS March 2019 625-634*
- Liu, X.**, see Li, L., *TNS April 2019 716-723*
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- Lodola, L.**, see Ratti, L., *TNS Feb. 2019 567-574*
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- Lorentzen, J.R.**, see Warner, J.H., *TNS Jan. 2019 290-298*
- Loveless, T.D.**, see Patel, B., *TNS Jan. 2019 61-68*
- Lu, B.**, Chen, Y., Zhou, Y., Cao, X., Wang, Y., Yu, Q., Wang, K., Yi, T., and Hong, Z., A Study of $\Sigma\Delta$ -CDS Algorithm for X-Ray CCD Applications; *TNS Feb. 2019 597-608*
- Lu, H.**, Li, F., Miao, P., Hu, K., Zhang, Z., Sun, R., Ma, Q., and Jin, G., Development of FEB Configuration Test Board for ATLAS NSW Upgrade; *TNS Aug. 2019 2028-2032*
- Lu, J.**, Zhao, L., Chen, K., Deng, P., Li, B., Liu, S., and An, Q., Real-Time FPGA-Based Digital Signal Processing and Correction for a Small Animal PET; *TNS July 2019 1287-1295*
- Lu, Q.**, Shen, Q., Cao, Y., Liao, S., and Peng, C., Ultra-Low-Noise Balanced Detectors for Optical Time-Domain Measurements; *TNS July 2019 1048-1055*
- Lu, W.**, see Li, X., *TNS Jan. 2019 199-206*
- Lu, W.**, see Zheng, Q., *TNS April 2019 702-709*
- Lu, W.**, see Zheng, Q., *TNS June 2019 892-898*
- Lu, W.**, see Yao, S., *TNS July 2019 1557-1565*

- Luan, G.Y.**, see Yu, T., *TNS July 2019 1095-1099*
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Luo, Y., Zhang, F., Pan, X., Guo, H., and Wang, Y., Impact of Total Ionizing Dose on Low Energy Proton Single Event Upsets in Nanometer SRAM; *TNS July 2019 1848-1853*
Luukka, P., see Kalliokoski, M., *TNS May 2019 846-851*
Lv, G., see Li, X., *TNS July 2019 1612-1619*
Lv, L., Yan, X., Cao, Y., Zhu, Q., Yang, L., Zhou, X., Ma, X., and Hao, Y., Significant Degradation of AlGaIn/GaN High-Electron Mobility Transistors With Fast and Thermal Neutron Irradiation; *TNS June 2019 886-891*

M

- Ma, J.**, see Wang, J., *TNS Feb. 2019 557-566*
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Makowski, D., Mielczarek, A., Perek, P., Szubert, A., Plewinski, P., Jablonski, G., Cichalewski, W., and Napieralski, A., High-Power Piezoelectric Tuner Driver for Lorentz Force Compensation; *TNS July 2019 1056-1063*
Malavasi, A., see Kumar, S., *TNS June 2019 918-925*
Manabe, S., see Abe, S., *TNS July 2019 1374-1380*
Manabe, S., Watanabe, Y., Liao, W., Hashimoto, M., and Abe, S., Estimation of Muon-Induced SEU Rates for 65-nm Bulk and UTBB-SOI SRAMs; *TNS July 2019 1398-1403*
Manabe, S., see Liao, W., *TNS July 2019 1390-1397*
Manghisoni, M., see Traversi, G., *TNS April 2019 752-759*
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Mann, C., see Foran, B., *TNS Jan. 2019 413-419*
Mannel, E.J., see Biro, B., *TNS July 2019 1833-1839*
Mansour, W., Janvier, N., and Fajardo, P., FPGA Implementation of RDMA-Based Data Acquisition System Over 100-Gb Ethernet; *TNS July 2019 1138-1143*
Mantovani, F., see Pedretti, D., *TNS July 2019 1151-1158*
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Marjanovic, M., ATLAS Tile Calorimeter Calibration and Monitoring Systems; *TNS July 2019 1228-1235*
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Martinella, C., Stark, R., Ziemann, T., Alia, R.G., Kadi, Y., Grossner, U., and Javanainen, A., Current Transport Mechanism for Heavy-Ion Degraded SiC MOSFETs; *TNS July 2019 1702-1709*
Martinez, M., see Raine, M., *TNS Jan. 2019 352-358*
Martinez, M., see Gaillardin, M., *TNS July 2019 1410-1417*
Martinez, M.J., King, M.P., Baca, A.G., Allerman, A.A., Armstrong, A.A., Klein, B.A., Douglas, E.A., Kaplar, R.J., and Swanson, S.E., Radiation Response of AlGaIn-Channel HEMTs; *TNS Jan. 2019 344-351*
Martinez, N.J., see Hoffman, G.B., *TNS May 2019 801-809*
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Manguet, M., Standarovski, D., Ecoffet, R., Andrianjohany, N., Lagarde, D., Gouyet, L., Azema, L., Chatry, N., Marie, X., Marec, R., and Calvel, P., Single-Event Latchup in a CMOS-Based ASIC Using Heavy Ions, Laser Pulses, and Coupled Simulation; *TNS July 2019 1516-1522*
Maurer, R.H., see Ottman, G., *TNS Dec. 2019 2408-2416*
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- McCurdy, M.W.**, see Jiang, R., *TNS Jan. 2019 170-176*
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- McMorrow, D.**, see Khachatrian, A., *TNS July 2019 1682-1687*
- Mcnamara, S.**, see Arutt, C.N., *TNS Jan. 2019 397-404*
- McPherson, J.A.**, Kowal, P.J., Pandey, G.K., Chow, T.P., Ji, W., and Woodworth, A.A., Heavy Ion Transport Modeling for Single-Event Burnout in SiC-Based Power Devices; *TNS Jan. 2019 474-481*
- Mechinsky, V.**, see Korjik, M., *TNS Jan. 2019 536-540*
- Medina, N.H.**, see Benites, L.A.C., *TNS July 2019 1433-1440*
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- Mekki, J.**, see Ruffenach, M., *TNS July 2019 1753-1760*
- Mekki, J.**, see Kerboub, N., *TNS July 2019 1541-1547*
- Melin, G.**, Guitton, P., Montron, R., Gotter, T., Robin, T., Overton, B., Morana, A., Rizzolo, S., and Girard, S., Radiation Resistant Single-Mode Fiber With Different Coatings for Sensing in High Dose Environments; *TNS July 2019 1657-1662*
- Melin, G.**, see Sabatier, C., *TNS July 2019 1651-1656*
- Mellert, E.**, see Ottman, G., *TNS Dec. 2019 2408-2416*
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- Michez, A.**, see Kuboyama, S., *TNS July 2019 1688-1693*
- Michez, A.**, see Borel, T., *TNS July 2019 1606-1611*
- Mielczarek, A.**, Makowski, D., Perek, P., and Napieralski, A., Framework for High-Performance Video Acquisition and Processing in MTCA.4 Form Factor; *TNS July 2019 1144-1150*
- Mielczarek, A.**, see Makowski, D., *TNS July 2019 1056-1063*
- Mihailescu, L.**, see Hellfeld, D., *TNS Oct. 2019 2252-2260*
- Miller, S.**, see Bhattacharya, P., *TNS Sept. 2019 2136-2139*
- Miller, S.R.**, Marshall, M.S.J., Wart, M., Bilheux, H.Z., Santodonato, L.J., Riedel, R., and Nagarkar, V.V., LiF/CsI:TI Scintillator for High-Resolution Neutron Imaging; *TNS Oct. 2019 2261-2264*
- Miller, S.R.**, Brecher, C., Marshall, M.S.J., Wart, M., and Nagarkar, V.V., How Excitation Conditions Alter the Afterglow Characteristics of CsI:TI,Sm Microcolumnar Films; *TNS Oct. 2019 2229-2232*
- Millett, M.**, see VanDerwerken, D., *TNS Sept. 2019 2080-2087*
- Min, D.**, see Pan, S., *TNS Feb. 2019 549-556*
- Miramonti, L.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Miryala, S.**, Braga, D., Christian, D.C., Deptuch, G.W., Gui, P., Hoff, J.R., Holm, S., and Wang, X., CDP1—A Data Concentrator Prototype for the Deep Underground Neutrino Experiment; *TNS Nov. 2019 2338-2345*
- Mirzoyan, R.**, see Inome, Y., *TNS Aug. 2019 1993-1997*
- Mishra, A.K.**, Shimjith, S.R., and Tiwari, A.P., Adaptive Unscented Kalman Filtering for Reactivity Estimation in Nuclear Power Plants; *TNS Dec. 2019 2388-2397*
- Mitard, J.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Mitra, P.**, Tyagi, M., Thomas, R.G., Kumar, A.V., and Gadkari, S.C., Optimization of Parameters for a CsI(Tl) Scintillator Detector Using GEANT4-Based Monte Carlo Simulation Including Optical Photon Transport; *TNS July 2019 1870-1878*
- Miura, K.**, see Shimogawa, T., *TNS July 2019 1236-1241*
- Miyoshi, T.**, see Hagino, K., *TNS July 2019 1897-1905*
- Mizuta, E.**, see Kuboyama, S., *TNS July 2019 1688-1693*
- Mizuta, E.**, see Kuboyama, S., *TNS July 2019 1710-1714*
- Mohammed, R.W.**, see Haeffner, T.D., *TNS June 2019 911-917*
- Mohan, P.**, see Kibar, O.O., *TNS Jan. 2019 248-254*
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- Molnar, J.**, see Biro, B., *TNS July 2019 1833-1839*
- Monforte, S.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Monsanglant-Louvet, C.**, see Rizzolo, S., *TNS Jan. 2019 111-119*
- Montes, J.**, Yang, T., Fu, H., Chen, H., Huang, X., Fu, K., Baranowski, I., and Zhao, Y., Effect of Proton Radiation on Ultrawide Bandgap AlN Schottky Barrier Diodes; *TNS Jan. 2019 91-96*
- Monteuuis, A.**, see Kerboub, N., *TNS July 2019 1541-1547*
- Montini, P.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Montoya, J.**, see Hansen, D.L., *TNS Jan. 2019 270-275*
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- Montuschi, M.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Morana, A.**, see Girard, S., *TNS Jan. 2019 306-311*
- Morana, A.**, Baghdasaryan, T., Girard, S., Marin, E., Geernaert, T., Thienpont, H., Berghmans, F., Boukenter, A., and Ouerdane, Y., Radiation-Induced Effects on Fiber Bragg Gratings Inscribed in Highly Birefringent Photonic Crystal Fiber; *TNS Jan. 2019 120-124*
- Morana, A.**, see Melin, G., *TNS July 2019 1657-1662*
- Morana, A.**, see Sabatier, C., *TNS July 2019 1651-1656*
- Moreira, P.**, see Olantera, L., *TNS July 2019 1663-1670*
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- Mori, K.**, see Hagino, K., *TNS July 2019 1897-1905*
- Mori, Y.**, see Kobayashi, D., *TNS Jan. 2019 155-162*
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- Morilla, Y.**, see Pena-Fernandez, M., *TNS July 2019 1457-1464*
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- Muller, N.**, see Fontana, A., *TNS July 2019 1473-1482*
- Muller, N.A.**, see Vega, N.A., *TNS Dec. 2019 2417-2421*
- Munch, M.**, Jensen, J.H., Loher, B., Tornqvist, H., and Johansson, H.T., VME Readout at and Below the Conversion Time Limit; *TNS Feb. 2019 575-584*
- Murayama, H.**, see Inadama, N., *TNS Jan. 2019 497-505*
- Murray, A.J.**, see Jones, M., *TNS Dec. 2019 2430-2434*
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- Muschitiello, M.**, see Bagatin, M., *TNS Jan. 2019 48-53*
- Myers, K.J.**, see Ashton, J.P., *TNS Jan. 2019 428-436*
- Myers, K.J.**, Waskiewicz, R.J., Lenahan, P.M., and Young, C.D., A Multifield and Frequency Electrically Detected Magnetic Resonance Study of Atomic-Scale Defects in Gamma Irradiated Modern MOS Integrated Circuitry; *TNS Jan. 2019 405-412*

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- Na, M.**, see Kim, H.S., *TNS Sept. 2019 2114-2122*
- Nagarkar, V.V.**, see Bhattacharya, P., *TNS Sept. 2019 2136-2139*

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Ohm, H., see Jikhovets, L., *TNS Aug. 2019 1942-1951*
Ohmori, C., and Paoluzzi, M., Development of Radiation-Hard Solid-State Amplifiers for Kilogray Environments Using COTS Components; *TNS Oct. 2019 2188-2195*
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Olantera, L., Troska, J., Vasey, F., Bottom, F., Kraxner, A., Detraz, S., Menouni, M., Moreira, P., Scarcella, C., Sigaud, C., and Soos, C., Radiation Effects on High-Speed InGaAs Photodiodes; *TNS July 2019 1663-1670*
Omprakash, A.P., McMorro, D., Buchner, S.P., Cressler, J.D., Ildefonso, A., Fleetwood, Z.E., Tzintzarov, G.N., Cardoso, A.S., Babcock, J.A., Mukhopadhyay, R., Khachatryan, A., and Warner, J.H., The Effects of Temperature on the Single-Event Transient Response of a High-Voltage (>30 V) Complementary SiGe-on-SOI Technology; *TNS Jan. 2019 389-396*
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Ottman, G., Maurer, R.H., and Mellert, E., An Algorithmic Approach to Observed Single Event Effects in Van Allen Probes Solid State Recorders; *TNS Dec. 2019 2408-2416*
Ouerdane, Y., see Girard, S., *TNS Jan. 2019 306-311*
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Pan, S., Min, D., Wang, X., Hou, X., Wang, L., and Li, S., Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Polyimide; *TNS Feb. 2019 549-556*
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Pardo-Montero, J., see Prieto-Pena, J., *TNS July 2019 1840-1847*
Pascoa, M.P., Maia, J.M., Auricchio, N., Curado da Silva, R.M., Crespo, P., do Carmo, S.J.C., Moita, M., Alves, F., and Caroli, E., Orbit-Like Proton Radiation Sensitivity of CdTe Detectors: Evaluation of Mobility-Lifetime Products and Spectroscopic Properties; *TNS Sept. 2019 2063-2071*
Patankar, V.H., see Gautam, S., *TNS May 2019 782-794*
Patel, B., Joplin, M., Boggs, R.C., Reising, D.R., McCurdy, M.W., Massengill, L.W., and Loveless, T.D., Ionizing Radiation Effects Spectroscopy for Analysis of Total-Ionizing Dose Degradation in RF Circuits; *TNS Jan. 2019 61-68*
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Pazos, S., see Fontana, A., *TNS July 2019 1473-1482*
Pedretti, D., Giaz, A., Lippi, I., Marini, F., Andronico, G., Antonelli, V., Bal-doncini, M., Bernieri, E., Brigatti, A., Budano, A., Buscemi, M., Bellato, M., Bussino, S., Caruso, R., Chiesa, D., Clementi, C., Ding, X.F., Dusini, S., Fabbri, A., Ford, R., Formozov, A., Giammarchi, M., Isocrate, R., Grassi, M., Insolia, A., Lombardi, P., Mantovani, F., Mari, S.M., Martellini, C., Martini,

- A., Meroni, E., Miramonti, L., Monforte, S., Bergnoli, A., Montini, P., Montuschi, M., Nastasi, M., Ortica, F., Paoloni, A., Previtali, E., Ranucci, G., Re, A.C., Ricci, B., Romani, A., Brugnara, R.,
Salamanna, G., Sawy, F.H., Settanta, G., Sisti, M., Sirignano, C., Stanco, L., Strati, V., Verde, G., Corti, D., Dal Corso, F., Galet, G., and Garfagnini, A., Nanoseconds Timing System Based on IEEE 1588 FPGA Implementation; *TNS July 2019 1151-1158*
- Pellegrini, G.**, see Prieto-Pena, J., *TNS July 2019 1840-1847*
- Pellegrini, G.**, see Giangiacomi, N., *TNS July 2019 1021-1027*
- Pena-Fernandez, M.**, Lindoso, A., Entrena, L., Garcia-Valderas, M., Morilla, Y., and Martin-Holgado, P., Online Error Detection Through Trace Infrastructure in ARM Microprocessors; *TNS July 2019 1457-1464*
- Peng, C.**, see Zhang, Z., *TNS July 2019 1368-1373*
- Peng, C.**, see Lu, Q., *TNS July 2019 1048-1055*
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- Peng, C.**, see Xie, H., *TNS July 2019 1070-1075*
- Peng, C.**, see Xu, Y., *TNS July 2019 1076-1080*
- Peng, C.**, Zhang, Z., Lei, Z., He, Y., Lai, C., Chen, Y., Huang, Y., and En, Y., Incorporation of Secondary-Ion Information and TCAD Simulation for Atmospheric Neutron Soft-Error-Rate Prediction in SRAMs; *TNS Oct. 2019 2170-2178*
- Peng, Q.**, see Xie, S., *TNS Sept. 2019 2100-2106*
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- Perevertaylo, V.**, see James, B., *TNS Jan. 2019 320-326*
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- Petasecca, M.**, see Biasi, G., *TNS Jan. 2019 519-527*
- Peterson, M.**, see Foran, B., *TNS Jan. 2019 413-419*
- Petitdidier, S.**, Guhel, Y., Trolet, J.L., Mary, P., Gaquiere, C., and Boudart, B., Neutron Irradiation Effects on the Electrical Properties of Previously Electrically Stressed AlInN/GaN HEMTs; *TNS May 2019 810-819*
- Petzold, S.**, Sharath, S.U., Lemke, J., Hildebrandt, E., Trautmann, C., and Alff, L., Heavy Ion Radiation Effects on Hafnium Oxide-Based Resistive Random Access Memory; *TNS July 2019 1715-1718*
- Peura, P.**, see Belanger-Champagne, C., *TNS Jan. 2019 487-496*
- Philip, S.**, see Belwanshi, V., *TNS Sept. 2019 2055-2062*
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- Pingel, S.**, see Schacht, J., *TNS July 2019 1262-1266*
- Pinto, J.C.**, see Pinto, M., *TNS July 2019 1770-1777*
- Pinto, M.**, Goncalves, P., Marques, A., Pinto, J.C., and Hajdas, W., Development of a Directionality Detector for RADEM, the Radiation Hard Electron Monitor Aboard the JUICE Mission; *TNS July 2019 1770-1777*
- Piotrowski, A.**, see Cichalewski, W., *TNS Sept. 2019 2145-2152*
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- Pisani, F.**, see Colombo, T., *TNS July 2019 982-985*
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- Previtali, E.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Prieto-Pena, J.**, Gomez, F., Fleta, C., Guardiola, C., Pellegrini, G., Donetti, M., Giordanengo, S., Gonzalez-Castano, D.M., and Pardo-Montero, J., Microdosimetric Spectra Measurements on a Clinical Carbon Beam at Nominal Therapeutic Fluence Rate With Silicon Cylindrical Microdosimeters; *TNS July 2019 1840-1847*
- Prinzle, J.**, Thys, S., Van Bockel, B., Wang, J., De Smedt, V., and Leroux, P., An SRAM-Based Radiation Monitor With Dynamic Voltage Control in 0.18- μm CMOS Technology; *TNS Jan. 2019 282-289*
- Prinzle, J.**, and De Smedt, V., Time-Dependent Single-Event Effects in CMOS LC-Oscillators; *TNS Sept. 2019 2048-2054*
- Privat, A.**, Barnaby, H.J., Adell, P.C., Tolleson, B.S., Wang, Y., Han, X., Davis, P., Rax, B.R., and Buchheit, T.E., Multiscale Modeling of Total Ionizing Dose Effects in Commercial-off-the-Shelf Parts in Bipolar Technologies; *TNS Jan. 2019 190-198*
- Privat, A.**, see Witulski, A.F., *TNS July 2019 1634-1641*
- Prod'homme, T.**, Shortt, B., Verhoeve, P., Lemmel, F., Smit, H., Blommaert, S., van der Luijt, C., Visser, I., Beaufort, T., and Levillain, Y., Comparative Study of Cryogenic Versus Room-Temperature Proton Irradiation of N-Channel CCDs and Subsequent Annealing; *TNS Jan. 2019 134-139*
- Prokopenko, N.**, see Dvornikov, O., *TNS Nov. 2019 2305-2311*
- Prokopovich, D.A.**, see James, B., *TNS Jan. 2019 320-326*
- Prokopowicz, R.**, see Jankowski, J., *TNS June 2019 926-931*
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- Pytel, K.**, see Jankowski, J., *TNS June 2019 926-931*

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- Quinn, H.**, see Fleetwood, D.M., *TNS Jan. 2019 8*
- Quinn, H.**, see Bohman, M., *TNS Jan. 2019 223-232*
- Quinn, H.**, Watkins, A., Dominik, L., and Slayman, C., The Effect of 1–10-MeV Neutrons on the JESD89 Test Standard; *TNS Jan. 2019 140-147*
- Quinn, H.**, see Fleetwood, D., *TNS June 2019 854*
- Quinn, H.**, see Fleetwood, D., *TNS July 2019 1352*
- Quiter, B.J.**, see Bilton, K.J., *TNS May 2019 827-837*
- Quiter, B.J.**, see Hellfeld, D., *TNS Sept. 2019 2088-2099*

R

- Rabin, M.W.**, see Becker, D.T., *TNS Dec. 2019 2355-2363*
- Radtke, J.**, Brooks, P., Anderson, M., Culberson, W., Deluca, P., Anderson, D., Wilson, P., Bartol, L., Maile, A., Agasie, R., Trumbull, T., and Grant, E., Ionization Chambers to Determine Neutron and Gamma-Ray Kerma in a Research Reactor; *TNS Oct. 2019 2160-2169*
- Rafiei, M.**, Ansarifard, G.R., and Hadad, K., Core Power Control of a Nuclear Research Reactor During Power Maneuvering Transients Using Optimized PID-Controller Based on the Fractional Neutron Point Kinetics Model With Reactivity Feedback Effects; *TNS July 2019 1804-1812*
- Raine, M.**, Vinet, M., Andrieu, F., Barraud, S., Gaillardin, M., Martinez, M., Duhamel, O., Riffaud, J., Lagutere, T., Marcandella, C., Paillet, P., and Richard, N., SET Sensitivity of Trigate Silicon Nanowire Field-Effect Transistors; *TNS Jan. 2019 352-358*
- Raine, M.**, see Gaillardin, M., *TNS July 2019 1410-1417*
- Rajbhandary, P.L.**, see Wang, J., *TNS June 2019 960-968*
- Ram, N.**, see Azmoun, B., *TNS Aug. 2019 1984-1992*

- Ranucci, G.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Ratti, L.**, Musacci, M., Pancheri, L., Vacchi, C., Brogi, P., Collazuolo, G., Dalla Betta, G., Ficarella, A., Lodola, L., Marrochiesi, P.S., Mattiazzo, S., and Morsani, F., Dark Count Rate Degradation in CMOS SPADs Exposed to X-Rays and Neutrons; *TNS Feb. 2019 567-574*
- Rauch, J.**, see Kerboub, N., *TNS July 2019 1541-1547*
- Ravotti, F.**, see Fernandez-Martinez, P., *TNS July 2019 1523-1531*
- Rawat, S.**, Tyagi, M., Anil Kumar, G., Gadkari, S.C., and Kim, H.J., The Effect of Codoping on Pulse-Shape Discrimination Properties of $Gd_3Ga_3Al_2O_{12}:Ce$ Single Crystals; *TNS Dec. 2019 2440-2445*
- Rax, B.**, see Adell, P.R., *TNS Jan. 2019 163-169*
- Rax, B.R.**, see Privat, A., *TNS Jan. 2019 190-198*
- Ray, N.K.**, see Tyagi, M., *TNS April 2019 724-728*
- Re, A.C.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Reaz, M.**, see Fang, J., *TNS Jan. 2019 444-451*
- Rech, P.**, see Kibar, O.O., *TNS Jan. 2019 248-254*
- Rech, P.**, see Libano, F., *TNS Jan. 2019 216-222*
- Rech, P.**, see Goncalves, M., *TNS July 2019 1449-1456*
- Recker, M.C.**, Cazalas, E.J., McClory, J.W., and Bevins, J.E., Comparison of SiPM and PMT Performance Using a $Cs_2LiYCl_6:Ce^{3+}$ (CLYC) Scintillator With Two Optical Windows; *TNS Aug. 2019 1959-1965*
- Reckleben, C.**, see Hansen, K., *TNS Aug. 2019 1966-1975*
- Reed, R.A.**, see Fang, J., *TNS Jan. 2019 444-451*
- Reed, R.A.**, see Gong, H., *TNS Jan. 2019 376-383*
- Reed, R.A.**, see Liang, C., *TNS Jan. 2019 384-388*
- Reed, R.A.**, see Black, J.D., *TNS Jan. 2019 233-239*
- Reed, R.A.**, see Ball, D.R., *TNS Jan. 2019 337-343*
- Reed, R.A.**, see Howard, J.T., *TNS Jan. 2019 184-189*
- Reed, R.A.**, see Haeflner, T.D., *TNS June 2019 911-917*
- Reed, R.A.**, see Johnson, R.A., *TNS July 2019 1694-1701*
- Reed, R.A.**, see Witulski, A.F., *TNS July 2019 1634-1641*
- Reed, R.A.**, see Liao, W., *TNS July 2019 1730-1737*
- Reed, R.A.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Refaeli, N.**, see Keren, E., *TNS June 2019 946-954*
- Regele, H.**, see Carmona, P.F., *TNS July 2019 1280-1286*
- Reghioua, I.**, see Girard, S., *TNS Jan. 2019 306-311*
- Reinhard, M.I.**, see James, B., *TNS Jan. 2019 320-326*
- Reintsema, C.D.**, see Becker, D.T., *TNS Dec. 2019 2355-2363*
- Reising, D.R.**, see Patel, B., *TNS Jan. 2019 61-68*
- Rejhon, M.**, Dedic, V., Beran, L., Roy, U.N., Franc, J., and James, R.B., Investigation of Deep Levels in CdZnTeSe Crystal and Their Effect on the Internal Electric Field of CdZnTeSe Gamma-Ray Detector; *TNS Aug. 2019 1952-1958*
- Ren, D.**, see Zheng, Q., *TNS April 2019 702-709*
- Ren, D.**, see Zheng, Q., *TNS June 2019 892-898*
- Ren, J.**, see Yu, T., *TNS July 2019 1095-1099*
- Ren, Z.**, An, X., Wang, J., Li, G., Zhang, X., Zhang, X., and Huang, R., Interface Passivation Strategy for Ge pMOSFET From a TID Perspective; *TNS July 2019 1592-1598*
- Rey, S.**, see Trindade, M.G., *TNS July 2019 1441-1448*
- Ricci, B.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Riceputi, E.**, see Traversi, G., *TNS April 2019 752-759*
- Riceputi, E.**, see Hansen, K., *TNS Aug. 2019 1966-1975*
- Richard, N.**, see Raine, M., *TNS Jan. 2019 352-358*
- Richard, N.**, see Gaillardin, M., *TNS July 2019 1410-1417*
- Riedel, R.**, see Miller, S.R., *TNS Oct. 2019 2261-2264*
- Riffaud, J.**, see Raine, M., *TNS Jan. 2019 352-358*
- Riffaud, J.**, see Gaillardin, M., *TNS July 2019 1410-1417*
- Ritman, J.**, see Jokhovets, L., *TNS Aug. 2019 1942-1951*
- Riva, M.**, see Santos, B., *TNS July 2019 1324-1329*
- Riva, M.**, see Fernandes, A., *TNS July 2019 1318-1323*
- Riva, M.**, see Cruz, N., *TNS July 2019 1310-1317*
- Rizzolo, S.**, Allanche, T., Muller, C., Monsanglant-Louvet, C., Osmond, M., Desjonqueres, H., Mace, J., Burnichon, P., Baudu, J., Plumeri, S., Goiffon, V., Corbiere, F., Molina, R., Chabane, A., Girard, S., Paillet, P., Magnan, P., and Boukenter, A., Radiation Hardness Comparison of CMOS Image Sensor Technologies at High Total Ionizing Dose Levels; *TNS Jan. 2019 111-119*
- Rizzolo, S.**, see Le Roch, A., *TNS March 2019 616-624*
- Rizzolo, S.**, see Melin, G., *TNS July 2019 1657-1662*
- Roberson, D.**, see Al Rashdan, A., *TNS Sept. 2019 2034-2041*
- Robin, T.**, see Melin, G., *TNS July 2019 1657-1662*
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- Robinson, W.**, see Fleetwood, D.M., *TNS Jan. 2019 8*
- Robinson, W.**, see Fleetwood, D., *TNS June 2019 854*
- Robinson, W.**, see Fleetwood, D., *TNS July 2019 1352*
- Roche, N.J.**, see Khachatryan, A., *TNS Jan. 2019 368-375*
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- Roh, W.**, see Azmoun, B., *TNS Aug. 2019 1984-1992*
- Romani, A.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Rosenfeld, A.B.**, see James, B., *TNS Jan. 2019 320-326*
- Rosenfeld, A.B.**, see Biasi, G., *TNS Jan. 2019 519-527*
- Rostand, N.**, Martinie, S., Gaillardin, M., Marcandella, C., Rozeau, O., Lacord, J., Barbe, J., Poiroux, T., and Hubert, G., Total Ionizing Dose Effects in FDSOI Compact Model for IC Design; *TNS July 2019 1628-1633*
- Rowberry, H.C.**, see Cannon, M.J., *TNS Jan. 2019 207-215*
- Roy, K.**, see Gautam, S., *TNS May 2019 782-794*
- Roy, T.**, see Wang, P., *TNS July 2019 1584-1591*
- Roy, U.N.**, see Rejhon, M., *TNS Aug. 2019 1952-1958*
- Rozeau, O.**, see Rostand, N., *TNS July 2019 1628-1633*
- Ruan, J.**, see Liu, L., *TNS April 2019 737-741*
- Ruan, X.C.**, see Yu, T., *TNS July 2019 1095-1099*
- Rudrapati, S.**, see Jagtap, S., *TNS Sept. 2019 2072-2079*
- Ruffenach, M.**, Bourdarie, S., Mekki, J., Falguere, D., and Vaille, J.R., Proton Radiation Belt Anisotropy as Seen by ICARE-NG Head-A; *TNS July 2019 1753-1760*
- Ruiz, M.**, see Carpeno, A., *TNS July 2019 1007-1013*
- Rumaiz, A.K.**, see Giacomini, G., *TNS Oct. 2019 2245-2251*
- Russell, S.**, see Holt, J.S., *TNS Dec. 2019 2398-2407*
- Rutkowski, I.**, see Grzegorzolka, M., *TNS July 2019 1254-1261*
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- Ryder, K.L.**, see Liang, C., *TNS Jan. 2019 384-388*
- Ryder, L.D.**, see Johnson, R.A., *TNS July 2019 1694-1701*
- Ryoshi, M.**, see Tamura, F., *TNS July 2019 1242-1248*

S

- Sabatier, C.**, Boukenter, A., Champavere, A., Marin, E., Lecoeuche, V., Girard, S., Melin, G., Robin, T., Cadier, B., Mescia, L., Morana, A., and Ouerdane, Y., Distributed Optical Fiber Sensor Allowing Temperature and Strain Discrimination in Radiation Environments; *TNS July 2019 1651-1656*
- Sachdev, M.**, see Blackmore, E., *TNS Jan. 2019 276-281*
- Saigne, F.**, see Aguiar, Y.Q., *TNS July 2019 1465-1472*
- Saigne, F.**, see Kuboyama, S., *TNS July 2019 1688-1693*
- Saito, N.**, see Kato, T., *TNS July 2019 1381-1389*
- Saito, T.**, see Inome, Y., *TNS Aug. 2019 1993-1997*
- Sakamoto, T.**, see Takeuchi, K., *TNS July 2019 1355-1360*
- Salamanna, G.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Salas, J.G.**, see Black, J.D., *TNS Jan. 2019 233-239*
- Samedov, V.V.**, Rebuttal of Comment on "Radial Dependence of Induced Current Density and Small Pixel Effect in Parallel-Plate Detectors" *TNS Sept. 2019 2156-2158*
- Sammur, N.**, see Grima, A., *TNS April 2019 688-695*
- Sandberg, I.**, Evans, H., Rodgers, D., Aminalragia-Giamini, S., Provatias, G., Hands, A., Ryden, K., Heynderickx, D., Tsigkanos, A., Papadimitriou, C., and Nagatsuma, T., Data Exploitation of New Galileo Environmental Monitoring Units; *TNS July 2019 1761-1769*
- Sander, O.**, Karcher, N., Kromer, O., Kempf, S., Wegner, M., Enss, C., and Weber, M., Software-Defined Radio Readout System for the ECHO Experiment; *TNS July 2019 1204-1209*
- Santin, G.**, see Tali, M., *TNS Jan. 2019 437-443*
- Santodonato, L.J.**, see Miller, S.R., *TNS Oct. 2019 2261-2264*

- Santos, B.**, Marocco, D., Esposito, B., Correia, C.M.B.A., Pereira, R.C., Cruz, N., Fernandes, A., Carvalho, P.F., Sousa, J., Goncalves, B., Riva, M., Pollastrone, F., and Centioli, C., Real-Time Data Compression for Data Acquisition Systems Applied to the ITER Radial Neutron Camera; *TNS July 2019 1324-1329*
- Santos, B.**, see Fernandes, A., *TNS July 2019 1318-1323*
- Santos, B.**, see Cruz, N., *TNS July 2019 1310-1317*
- Santos, B.**, see Correia, M., *TNS Oct. 2019 2282-2285*
- Santos, L.**, see Lentaris, G., *TNS Jan. 2019 312-319*
- Sarkar, P.S.**, see Tyagi, M., *TNS April 2019 724-728*
- Sato, T.**, see Abe, S., *TNS July 2019 1374-1380*
- Sawy, F.H.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Scarella, C.**, see Olantera, L., *TNS July 2019 1663-1670*
- Schacht, J.**, Laqua, H., Muller, I., Puttnies, H., and Skodzik, J., The Trigger-Time-Event System for Wendelstein 7-X: Overview and First Operational Experiences; *TNS June 2019 969-973*
- Schacht, J.**, Wolk, A., Pingel, S., Herbst, U., and Naujoks, D., Simulation System for the Wendelstein 7-X Safety Control System; *TNS July 2019 1262-1266*
- Schappeit, R.**, see Hansen, K., *TNS Aug. 2019 1966-1975*
- Scheick, L.**, see Adell, P.R., *TNS Jan. 2019 163-169*
- Scheiman, D.A.**, see Warner, J.H., *TNS Jan. 2019 290-298*
- Schlarb, H.**, see Cichalewski, W., *TNS Sept. 2019 2145-2152*
- Schlosser, I.**, see Hansen, K., *TNS Aug. 2019 1966-1975*
- Schmeling, S.M.**, Message From the Editor for Contributions to the 2018 Real Time Conference Issue of TNS; *TNS July 2019 980*
- Schmelzle, S.**, see Tan Jerome, N., *TNS July 2019 1296-1303*
- Schmidt, D.R.**, see Becker, D.T., *TNS Dec. 2019 2355-2363*
- Schmidt, G.**, see Vega, N.A., *TNS Dec. 2019 2417-2421*
- Schone, H.**, see Witulski, A.F., *TNS July 2019 1634-1641*
- Schreuder, F.**, see Borga, A., *TNS July 2019 993-997*
- Schrimpf, R.D.**, see Fang, J., *TNS Jan. 2019 444-451*
- Schrimpf, R.D.**, see Wang, P., *TNS Jan. 2019 420-427*
- Schrimpf, R.D.**, see Jiang, R., *TNS Jan. 2019 170-176*
- Schrimpf, R.D.**, see Gong, H., *TNS Jan. 2019 376-383*
- Schrimpf, R.D.**, see Liang, C., *TNS Jan. 2019 384-388*
- Schrimpf, R.D.**, see Black, J.D., *TNS Jan. 2019 233-239*
- Schrimpf, R.D.**, see Arutt, C.N., *TNS Jan. 2019 397-404*
- Schrimpf, R.D.**, see Ball, D.R., *TNS Jan. 2019 337-343*
- Schrimpf, R.D.**, see Howard, J.T., *TNS Jan. 2019 184-189*
- Schrimpf, R.D.**, see Witczak, S.C., *TNS May 2019 795-800*
- Schrimpf, R.D.**, see Haeffner, T.D., *TNS June 2019 911-917*
- Schrimpf, R.D.**, see Johnson, R.A., *TNS July 2019 1694-1701*
- Schrimpf, R.D.**, see Witulski, A.F., *TNS July 2019 1634-1641*
- Schrimpf, R.D.**, see Wang, P., *TNS July 2019 1584-1591*
- Schrimpf, R.D.**, see Liao, W., *TNS July 2019 1730-1737*
- Schrimpf, R.D.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Schumacher, J.**, see Borga, A., *TNS July 2019 993-997*
- Schwemling, P.**, see Besin, D., *TNS Aug. 2019 2011-2016*
- Schwemmer, R.**, see Colombo, T., *TNS July 2019 1159-1164*
- Schwemmer, R.**, see Colombo, T., *TNS July 2019 982-985*
- Scofield, A.C.**, see Khachatryan, A., *TNS July 2019 1682-1687*
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- Serdjuk, V.**, see Jokhovets, L., *TNS Aug. 2019 1942-1951*
- Serpell, E.**, see Hansen, D.L., *TNS Jan. 2019 270-275*
- Serrano-Cases, A.**, Morilla, Y., Martin-Holgado, P., Cuenca-Asensi, S., and Martinez-Alvarez, A., Nonintrusive Automatic Compiler-Guided Reliability Improvement of Embedded Applications Under Proton Irradiation; *TNS July 2019 1500-1509*
- Settanta, G.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Shaneyfelt, M.R.**, see Black, J.D., *TNS Jan. 2019 233-239*
- Shangase, D.**, see Azmoun, B., *TNS Aug. 2019 1984-1992*
- Shao, Y.**, see Cheng, X., *TNS Sept. 2019 2107-2113*
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- Shen, M.**, see Zheng, Q., *TNS April 2019 702-709*
- Shen, Q.**, see Lu, Q., *TNS July 2019 1048-1055*
- Shen, Q.**, see Xie, H., *TNS July 2019 1070-1075*
- Shen, Z.**, see Zhao, S., *TNS July 2019 1107-1114*
- Shen, Z.**, see Wang, Y., *TNS July 2019 1064-1069*
- Shen, Z.**, Wang, S., Li, C., Feng, C., and Liu, S., Study on the Real-Time Lossless Data Compression Method Used in the Readout System for Micropattern Gas Detector; *TNS Aug. 2019 2017-2021*
- Sheng, J.**, see Wang, Z., *TNS June 2019 880-885*
- Sheu, R.**, see Yang, Z., *TNS Aug. 2019 1931-1941*
- Shi, J.**, see Li, L., *TNS April 2019 716-723*
- Shi, Q.**, see Zhang, Z., *TNS July 2019 1368-1373*
- Shimjith, S.R.**, see Mishra, A.K., *TNS Dec. 2019 2388-2397*
- Shimogawa, T.**, Kurimoto, Y., Morita, Y., Miura, K., and Naito, D., A Control System of New Magnet Power Converter for J-PARC Main Ring Upgrade; *TNS July 2019 1236-1241*
- Shimogawa, T.**, see Kurimoto, Y., *TNS July 2019 1036-1041*
- Shindou, H.**, see Kuboyama, S., *TNS July 2019 1688-1693*
- Shindou, H.**, see Takeuchi, K., *TNS July 2019 1355-1360*
- Shindou, H.**, see Kuboyama, S., *TNS July 2019 1710-1714*
- Shortt, B.**, see Prod'homme, T., *TNS Jan. 2019 134-139*
- Shu, L.**, Galloway, K.F., Wang, L., Zhou, X., Li, T., Yuan, Z., Sui, C., Li, Y., Wang, B., and Zhao, Y., Numerical and Experimental Investigation of TID Radiation Effects on the Breakdown Voltage of 400-V SOI NLD MOSFETs; *TNS April 2019 710-715*
- Shu, L.**, see Wang, L., *TNS June 2019 875-879*
- Shuvra, P.D.**, see Arutt, C.N., *TNS Jan. 2019 397-404*
- Sicard, A.**, see Bourdarie, S., *TNS July 2019 1746-1752*
- Sicard, A.**, Boscher, D., Lazaro, D., Bourdarie, S., Standarovski, D., and Ecoffet, R., New Model for the Plasma Electrons Fluxes (Part of GREEN Model); *TNS July 2019 1738-1745*
- Siddons, D.P.**, see Giacomini, G., *TNS Oct. 2019 2245-2251*
- Sierawski, B.D.**, see Ball, D.R., *TNS Jan. 2019 337-343*
- Sierawski, B.D.**, see Haeffner, T.D., *TNS June 2019 911-917*
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- Simion, S.**, see Besin, D., *TNS Aug. 2019 2011-2016*
- Singh, A.K.**, see Tyagi, M., *TNS April 2019 724-728*
- Sioncke, S.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Sipos, R.**, see Borga, A., *TNS July 2019 993-997*
- Sipos, R.**, The DAQ for the Single-Phase DUNE Prototype at CERN; *TNS July 2019 1210-1216*
- Sirignano, C.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Sisti, M.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Sklyarchuk, V.M.**, Gnatyuk, V.A., and Aoki, T., Depletion Region in Cr/CdTe/Au Schottky Diode X- and γ -Ray Detectors; *TNS Sept. 2019 2140-2144*
- Skodzik, J.**, see Schacht, J., *TNS June 2019 969-973*
- Skutnik, S.**, Knowles, J., and Glasgow, D., Quantification of Trace-Level Fissile Samples via Short-Lived Delayed Gamma Spectroscopy; *TNS Sept. 2019 2123-2135*
- Slayman, C.**, see Quinn, H., *TNS Jan. 2019 140-147*
- Smirnov, N.**, see Azmoun, B., *TNS Aug. 2019 1984-1992*
- Smit, H.**, see Prod'homme, T., *TNS Jan. 2019 134-139*
- Smith, J.A.**, see Champley, K.M., *TNS March 2019 674-686*
- Soldat, J.**, see Hansen, K., *TNS July 2019 1966-1975*
- Song, H.S.**, Lee, S.H., Ghergherechi, M., Kim, H.S., Lee, J.C., Oh, S.Y., Hur, M.G., and Chai, J.S., Modular 20 kW, 83.2-MHz Solid-State RF Amplifier for a 10-MeV Cyclotron; *TNS Aug. 2019 1924-1930*
- Song, I.**, see Cho, M., *TNS Jan. 2019 240-247*
- Song, Z.**, see Chen, W., *TNS June 2019 856-865*
- Song, Z.**, see Wang, Y., *TNS Oct. 2019 2275-2281*
- Song, Z.H.**, see Yu, T., *TNS July 2019 1095-1099*
- Soos, C.**, see Olantera, L., *TNS July 2019 1663-1670*
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- Sousa, J.**, see Santos, B., *TNS July 2019 1324-1329*
- Sousa, J.**, see Fernandes, A., *TNS July 2019 1318-1323*
- Sousa, J.**, see Cruz, N., *TNS July 2019 1310-1317*

- Sousa, J., see Correia, M., *TNS Oct. 2019 2282-2285*
- Soverini, D., see Giangiacomi, N., *TNS July 2019 1021-1027*
- Stanco, L., see Pedretti, D., *TNS July 2019 1151-1158*
- Standarovski, D., see Bourdarie, S., *TNS July 2019 1746-1752*
- Standarovski, D., see Kerboub, N., *TNS July 2019 1541-1547*
- Standarovski, D., see Sicard, A., *TNS July 2019 1738-1745*
- Standarovski, D., see Mauguet, M., *TNS July 2019 1516-1522*
- Starbuck, A.L., see Hoffman, G.B., *TNS May 2019 801-809*
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- Steinbach, R., see Black, J.D., *TNS Jan. 2019 233-239*
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- Sternberg, A.L., see Gong, H., *TNS Jan. 2019 376-383*
- Sternberg, A.L., see Liang, C., *TNS Jan. 2019 384-388*
- Sternberg, A.L., see Ball, D.R., *TNS Jan. 2019 337-343*
- Sternberg, A.L., see Kauppila, J.S., *TNS March 2019 635-642*
- Sternberg, A.L., see Johnson, R.A., *TNS July 2019 1694-1701*
- Sternberg, A.L., see Harrington, R.C., *TNS July 2019 1427-1432*
- Sterpone, L., see Du, B., *TNS July 2019 1813-1819*
- Stezelberger, T., see Grace, C.R., *TNS June 2019 955-959*
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- Strati, V., see Pedretti, D., *TNS July 2019 1151-1158*
- Streun, M., see Jokhovets, L., *TNS Aug. 2019 1942-1951*
- Strittmatter, A., see Vega, N.A., *TNS Dec. 2019 2417-2421*
- Struder, L., see Hansen, K., *TNS Aug. 2019 1966-1975*
- Stuchbery, A., see James, B., *TNS Jan. 2019 320-326*
- Su, Y., see Liang, C., *TNS Jan. 2019 384-388*
- Sugaya, Y., see Khai, B.T., *TNS July 2019 1174-1181*
- Sugiyama, Y., see Tamura, F., *TNS July 2019 1242-1248*
- Suguitan, N., see Holt, J.S., *TNS Dec. 2019 2398-2407*
- Sui, C., see Shu, L., *TNS April 2019 710-715*
- Sui, C., see Wang, L., *TNS June 2019 875-879*
- Sun, H., see Ding, L., *TNS June 2019 866-874*
- Sun, H., see Yu, T., *TNS July 2019 1095-1099*
- Sun, J., see Li, X., *TNS Jan. 2019 199-206*
- Sun, J., see Yao, S., *TNS July 2019 1557-1565*
- Sun, L., see Guo, C., *TNS July 2019 1222-1227*
- Sun, Q., see Zhou, W., *TNS July 2019 1115-1122*
- Sun, R., see Lu, H., *TNS Aug. 2019 2028-2032*
- Sun, X., Wang, F., Hu, Q., Xu, C., and Nie, M., Survey and Test Environment for ITER EPP#12 In-PP Electrical Components; *TNS July 2019 1330-1334*
- Sun, X., see Yang, C., *TNS July 2019 1088-1094*
- Sun, X., see Zhou, W., *TNS July 2019 1115-1122*
- Sun, X.Y., see Yu, T., *TNS July 2019 1095-1099*
- Sun, Y., see Ulseth, J., *TNS Dec. 2019 2347-2354*
- Sun, Z.J., see Yu, T., *TNS July 2019 1095-1099*
- Sunada, Y., see Inome, Y., *TNS Aug. 2019 1993-1997*
- Suzuki, K., see Khai, B.T., *TNS July 2019 1174-1181*
- Suzuki, K.N., see Ichikawa, M., *TNS Aug. 2019 2022-2027*
- Swanson, S.E., see Jacobs-Gedrim, R.B., *TNS Jan. 2019 54-60*
- Swanson, S.E., see Martinez, M.J., *TNS Jan. 2019 344-351*
- Swanson, S.E., see Hoffman, G.B., *TNS May 2019 801-809*
- Swetz, D.S., see Becker, D.T., *TNS Dec. 2019 2355-2363*
- Szczygiel, R., see Kmon, P., *TNS March 2019 664-673*
- Szubert, A., see Makowski, D., *TNS July 2019 1056-1063*
- Szypryt, P., see Becker, D.T., *TNS Dec. 2019 2355-2363*
- T**
- Tada, M., see Takeuchi, K., *TNS July 2019 1355-1360*
- Taggart, J.L., see Ye, Z., *TNS Jan. 2019 97-103*
- Taggart, J.L., see Jacobs-Gedrim, R.B., *TNS Jan. 2019 54-60*
- Taggart, J.L., Jacobs-Gedrim, R.B., McLain, M.L., Barnaby, H.J., Bielejec, E.S., Hardy, W., Marinella, M.J., Kozicki, M.N., and Holbert, K., Failure Thresholds in CBRAM Due to Total Ionizing Dose and Displacement Damage Effects; *TNS Jan. 2019 69-76*
- Tai, R., see Yu, H., *TNS Dec. 2019 2435-2439*
- Takahashi, T.N., see Ichikawa, M., *TNS Aug. 2019 2022-2027*
- Takeda, A., see Hagino, K., *TNS July 2019 1897-1905*
- Takeuchi, K., Sakamoto, T., Tada, M., Takeyama, A., Ohshima, T., Kuboyama, S., and Shindou, H., Single-Event Effects Induced on Atom Switch-based Field-Programmable Gate Array; *TNS July 2019 1355-1360*
- Takeyama, A., see Takeuchi, K., *TNS July 2019 1355-1360*
- Tali, M., see Alia, R.G., *TNS Jan. 2019 458-465*
- Tali, M., Virtanen, A., Alia, R.G., Brugger, M., Ferlet-Cavrois, V., Corsini, R., Farabolini, W., Javanainen, A., Santin, G., and Boatella Polo, C., Mechanisms of Electron-Induced Single-Event Latchup; *TNS Jan. 2019 437-443*
- Tali, M., see Fernandez-Martinez, P., *TNS July 2019 1523-1531*
- Tamboli, P.K., see Gautam, S., *TNS May 2019 782-794*
- Tamulaitis, G., Vasil'ev, A., Korzhik, M., Mazzi, A., Gola, A., Nargelas, S., Vaitkevicius, A., Fedorov, A., and Kozlov, D., Improvement of the Time Resolution of Radiation Detectors Based on Gd₃Al₂Ga₃O₁₂ Scintillators With SiPM Readout; *TNS July 2019 1879-1888*
- Tamura, F., Sugiyama, Y., Yoshii, M., and Ryoshi, M., Development of Next-Generation LLRF Control System for J-PARC Rapid Cycling Synchrotron; *TNS July 2019 1242-1248*
- Tamura, K., see Inome, Y., *TNS Aug. 2019 1993-1997*
- Tan, Z., see Chen, H., *TNS Aug. 2019 2005-2010*
- Tan, Z.X., see Yu, T., *TNS July 2019 1095-1099*
- Tan Jerome, N., Ateyev, Z., Schmelzle, S., Chilingaryan, S., and Kopmann, A., Real-Time Local Noise Filter in 3-D Visualization of CT Data; *TNS July 2019 1296-1303*
- Tanaka, M., see Ichikawa, M., *TNS Aug. 2019 2022-2027*
- Tanaka, T., see Hagino, K., *TNS July 2019 1897-1905*
- Tang, B., see Lin, Q., *TNS Dec. 2019 2364-2378*
- Tang, H.Q., see Yu, T., *TNS July 2019 1095-1099*
- Tang, J.Y., see Yu, T., *TNS July 2019 1095-1099*
- Tang, Q., see Kumar, S., *TNS June 2019 918-925*
- Tang, Q., see Wang, J., *TNS July 2019 1267-1272*
- Tang, Q., see Wang, Z., *TNS Aug. 2019 1998-2004*
- Tang, S., see Besin, D., *TNS Aug. 2019 2011-2016*
- Tang, X., see Gu, W., *TNS July 2019 1889-1896*
- Tang, Y., see Wu, M., *TNS July 2019 1820-1827*
- Tang, Y., see Zhou, X., *TNS Nov. 2019 2312-2318*
- Tangl, M., see Hansen, K., *TNS Aug. 2019 1966-1975*
- Tao, Y., see Chen, J., *TNS May 2019 820-826*
- Tao, Y., see Zhou, Y., *TNS Oct. 2019 2239-2244*
- Tatry, P., see Hansen, D.L., *TNS Jan. 2019 270-275*
- Tavoularis, A., see Lentaris, G., *TNS Jan. 2019 312-319*
- Tchekhovski, V., see Dvornikov, O., *TNS Nov. 2019 2305-2311*
- Teifel, J., see Black, J.D., *TNS Jan. 2019 233-239*
- Teng, Y., see Yang, C., *TNS July 2019 1088-1094*
- Teshima, M., see Inome, Y., *TNS Aug. 2019 1993-1997*
- Thibeault, C., see Darvishi, M., *TNS March 2019 643-654*
- Thienpont, H., see Morana, A., *TNS Jan. 2019 120-124*
- Thomas, J., see Zhou, W., *TNS July 2019 1115-1122*
- Thomas, R.G., see Mitra, P., *TNS July 2019 1870-1878*
- Thomas, V., see Hennig, W., *TNS July 2019 1182-1189*
- Thorburn, D., see Adell, P.R., *TNS Jan. 2019 163-169*
- Thurlow, C.A., see Cannon, M.J., *TNS Jan. 2019 207-215*
- Thys, S., see Prinzie, J., *TNS Jan. 2019 282-289*
- Tian, D., see Wang, J., *TNS Feb. 2019 557-566*
- Tian, D., see Wang, J., *TNS Oct. 2019 2179-2187*
- Tiwari, A.P., see Bhatt, T.U., *TNS Feb. 2019 541-548*
- Tiwari, A.P., see Yellapu, V.S., *TNS July 2019 1790-1803*
- Tiwari, A.P., see Mishra, A.K., *TNS Dec. 2019 2388-2397*
- Tokunaga, C., see Kumar, S., *TNS June 2019 918-925*
- Tolleson, B.S., see Privat, A., *TNS Jan. 2019 190-198*
- Tong, T., see Zhang, Z., *TNS July 2019 1368-1373*
- Tonigan, A.M., see Black, J.D., *TNS Jan. 2019 233-239*
- Topkar, A., see Belwanshi, V., *TNS Sept. 2019 2055-2062*
- Tornqvist, H., see Munch, M., *TNS Feb. 2019 575-584*
- Touboul, A., see Kuboyama, S., *TNS July 2019 1688-1693*
- Touboul, A., see Borel, T., *TNS July 2019 1606-1611*
- Touboul, A.D., see Aguiar, Y.Q., *TNS July 2019 1465-1472*

- Tran, L.T.**, see James, B., *TNS Jan. 2019 320-326*
- Trautmann, C.**, see Petzold, S., *TNS July 2019 1715-1718*
- Traversi, G.**, Dinapoli, R., Manghisoni, M., Mozzanica, A., and Riceputi, E., Signal and Noise Performance of a 110-nm CMOS Technology for Photon Science Applications; *TNS April 2019 752-759*
- Trinczek, M.**, see Blackmore, E., *TNS Jan. 2019 276-281*
- Trinczek, M.**, see Girard, S., *TNS Jan. 2019 306-311*
- Trindade, M.G.**, Coelho, A., Valadares, C., Viera, R.A.C., Rey, S., Cheymol, B., Baylac, M., Velazco, R., and Bastos, R.P., Assessment of a Hardware-Implemented Machine Learning Technique Under Neutron Irradiation; *TNS July 2019 1441-1448*
- Trippe, J.M.**, see Black, J.D., *TNS Jan. 2019 233-239*
- Trolet, J.L.**, see Petitdidier, S., *TNS May 2019 810-819*
- Troska, J.**, see Olantera, L., *TNS July 2019 1663-1670*
- Trotter, D.C.**, see Hoffman, G.B., *TNS May 2019 801-809*
- Trumbull, T.**, see Radtke, J., *TNS Oct. 2019 2160-2169*
- Tschanz, J.**, see Kumar, S., *TNS June 2019 918-925*
- Tsigkanos, A.**, see Sandberg, I., *TNS July 2019 1761-1769*
- Tsinganis, A.**, see Ferraro, R., *TNS July 2019 1548-1556*
- Tsukita, Y.**, see Yamada, K., *TNS July 2019 1418-1426*
- Tsuru, T.G.**, see Hagino, K., *TNS July 2019 1897-1905*
- Tsuzuki, M.**, see Khai, B.T., *TNS July 2019 1174-1181*
- Tuo, X.**, see Liu, B., *TNS Jan. 2019 528-535*
- Turcato, M.**, see Hansen, K., *TNS Aug. 2019 1966-1975*
- Tyagi, M.**, Sarkar, P.S., Singh, A.K., Kalyani, Patel, T., Bishnoi, S., Ray, N.K., Desai, D.G., and Gadkari, S.C., Development of Neutron Detector Based on $Gd_3Ga_3Al_2O_{12}:Ce$ Single Crystals; *TNS April 2019 724-728*
- Tyagi, M.**, see Mitra, P., *TNS July 2019 1870-1878*
- Tyagi, M.**, see Rawat, S., *TNS Dec. 2019 2440-2445*
- Tzintzarov, G.N.**, see Omprakash, A.P., *TNS Jan. 2019 389-396*
- Tzintzarov, G.N.**, see Ildefonso, A., *TNS Jan. 2019 359-367*
- Tzintzarov, G.N.**, see Goley, P.S., *TNS Jan. 2019 125-133*
- U**
- Uchida, H.**, see Hagino, K., *TNS July 2019 1897-1905*
- Uchida, T.**, see Ichikawa, M., *TNS Aug. 2019 2022-2027*
- Ujvari, B.**, see Biro, B., *TNS July 2019 1833-1839*
- Ullom, J.N.**, see Becker, D.T., *TNS Dec. 2019 2355-2363*
- Ulseth, J.**, Zhu, Z., Sun, Y., and Pang, S., Accelerated X-Ray Diffraction (Tensor) Tomography Simulation Using OptiX GPU Ray-Tracing Engine; *TNS Dec. 2019 2347-2354*
- Utica, G.**, see Grande, A., *TNS Oct. 2019 2233-2238*
- V**
- Vaandrager, B.L.**, see Jacobs-Gedrim, R.B., *TNS Jan. 2019 54-60*
- Vacchi, C.**, see Ratti, L., *TNS Feb. 2019 567-574*
- Vaille, J.R.**, see Ruffenach, M., *TNS July 2019 1753-1760*
- Vaitkevicius, A.**, see Tamulaitis, G., *TNS July 2019 1879-1888*
- Vajpayee, V.**, see Yellapu, V.S., *TNS July 2019 1790-1803*
- Valadares, C.**, see Trindade, M.G., *TNS July 2019 1441-1448*
- Valat, S.**, see Colombo, T., *TNS July 2019 1159-1164*
- Valat, S.**, see Colombo, T., *TNS July 2019 982-985*
- Vale, L.R.**, see Becker, D.T., *TNS Dec. 2019 2355-2363*
- Valentino, G.**, see de Cataldo, G., *TNS May 2019 763-770*
- Valero, A.**, see Carrio, F., *TNS July 2019 1014-1020*
- Van Bockel, B.**, see Prinzie, J., *TNS Jan. 2019 282-289*
- van der Luijt, C.**, see Prod'homme, T., *TNS Jan. 2019 134-139*
- VanDerwerken, D.**, Millett, M., and Whitlock, R., Improved Detection of a Mobile Radiological Source by Means of a Temporal Radiation Profile; *TNS Sept. 2019 2080-2087*
- Vari, R.**, see Izzo, V., *TNS July 2019 1028-1035*
- Vasey, F.**, see Olantera, L., *TNS July 2019 1663-1670*
- Vasil'ev, A.**, see Tamulaitis, G., *TNS July 2019 1879-1888*
- Vasiukov, S.**, Chiossi, F., Braggio, C., Carugno, G., Moretti, F., Bourret, E., and Derenzo, S., GaAs as a Bright Cryogenic Scintillator for the Detection of Low-Energy Electron Recoils From MeV/c² Dark Matter; *TNS Nov. 2019 2333-2337*
- Vaswani, P.D.**, and Chakraborty, D., Optimal State Feedback Controller for a Nuclear Reactor; *TNS Dec. 2019 2379-2387*
- Vega, J.**, see Carpeno, A., *TNS July 2019 1007-1013*
- Vega, N.**, see Fontana, A., *TNS July 2019 1473-1482*
- Vega, N.A.**, Dadgar, A., Strittmatter, A., Challa, S.R., Ferreyra, R.A., Kristukat, C., Muller, N.A., Debray, M.E., Schmidt, G., Witte, H., and Christen, J., Outstanding Reliability of Heavy-Ion-Irradiated AlInN/GaN on Silicon HFETs; *TNS Dec. 2019 2417-2421*
- Velazco, R.**, see Trindade, M.G., *TNS July 2019 1441-1448*
- Venzmer, A.**, see Hansen, K., *TNS Aug. 2019 1966-1975*
- Verde, G.**, see Pedretti, D., *TNS July 2019 1151-1158*
- Verhoeve, P.**, see Prod'homme, T., *TNS Jan. 2019 134-139*
- Vermeulen, M.**, see Borgia, A., *TNS July 2019 993-997*
- Vetter, K.**, see Bilton, K.J., *TNS May 2019 827-837*
- Vetter, K.**, see Hellfeld, D., *TNS Sept. 2019 2088-2099*
- Vetter, K.**, see Hellfeld, D., *TNS Oct. 2019 2252-2260*
- Vibbert, D.**, see Howard, J.T., *TNS Jan. 2019 184-189*
- Viera, R.A.C.**, see Trindade, M.G., *TNS July 2019 1441-1448*
- Vinet, M.**, see Raine, M., *TNS Jan. 2019 352-358*
- Vinet, M.**, see Gaillardin, M., *TNS July 2019 1410-1417*
- Virmontois, C.**, Garcia-Sanchez, E., Mouallem, W., Bardoux, A., Belloir, J., Beaumel, M., Vriet, A., Perrot, N., Sellier, C., Bezine, J., Gambart, D., and Blain, D., Dose and Single-Event Effects on a Color CMOS Camera for Space Exploration; *TNS Jan. 2019 104-110*
- Virmontois, C.**, see Le Roch, A., *TNS March 2019 616-624*
- Virmontois, C.**, see Belloir, J., *TNS July 2019 1671-1681*
- Virtanen, A.**, see Tali, M., *TNS Jan. 2019 437-443*
- Visser, I.**, see Prod'homme, T., *TNS Jan. 2019 134-139*
- Vizkelethy, G.**, see Jacobs-Gedrim, R.B., *TNS Jan. 2019 54-60*
- Vogel, E.M.**, see Wang, P., *TNS Jan. 2019 420-427*
- Vohradsky, J.**, see James, B., *TNS Jan. 2019 320-326*
- Voneki, B.**, see Colombo, T., *TNS July 2019 982-985*
- Voss, K.**, see Ildefonso, A., *TNS Jan. 2019 359-367*
- Vriet, A.**, see Virmontois, C., *TNS Jan. 2019 104-110*
- W**
- Waasen, S.V.**, see Jokhovets, L., *TNS Aug. 2019 1942-1951*
- Waldron, N.**, see Gong, H., *TNS Jan. 2019 376-383*
- Waldron, N.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Walsh, K.M.**, see Arutt, C.N., *TNS Jan. 2019 397-404*
- Wang, B.**, Wang, Z., Cao, K., Bi, X., Zhao, Y., Zhang, Y., and Zhao, W., Effects of Gamma Irradiation on Magnetic Properties of Double-Interface CoFeB/MgO Multilayers; *TNS Jan. 2019 77-81*
- Wang, B.**, see Foran, B., *TNS Jan. 2019 413-419*
- Wang, B.**, see Shu, L., *TNS April 2019 710-715*
- Wang, C.**, see Chen, W., *TNS June 2019 856-865*
- Wang, C.**, see Li, R., *TNS July 2019 1566-1573*
- Wang, D.**, see Wang, L., *TNS June 2019 875-879*
- Wang, D.**, see Gu, W., *TNS July 2019 1889-1896*
- Wang, F.**, see Sun, X., *TNS July 2019 1330-1334*
- Wang, F.**, see Wang, Y., *TNS July 2019 1335-1339*
- Wang, G.**, see Li, R., *TNS July 2019 1566-1573*
- Wang, H.**, see Chen, Y., *TNS July 2019 1304-1309*
- Wang, J.**, Zhang, Q., Zheng, Y., Tian, D., Zhu, A., Qiu, J., and Ma, J., TID and Internal Charging Evaluation for Jupiter Orbiting Mission; *TNS Feb. 2019 557-566*
- Wang, J.**, see Prinzie, J., *TNS Jan. 2019 282-289*
- Wang, J.**, Gao, Y., Fan, J., You, Z., Wang, S., and Xu, Z., Study on the Effect of Laser Parameters on the SEY of Aluminum Alloy; *TNS March 2019 609-615*
- Wang, J.**, see Chen, J., *TNS May 2019 820-826*
- Wang, J.**, Chen, L., Persson, M., Rajbhandary, P.L., Kandlakunta, P., Carini, G., and Fahrig, R., Pulse Pileup Analysis for a Double-Sided Silicon Strip Detector Using Variable Pulse Shapes; *TNS June 2019 960-968*
- Wang, J.**, see Ren, Z., *TNS July 2019 1592-1598*

- Wang, J.**, Zhang, Y., Zhang, H., Feng, Y., Chen, C., Wang, Z., Tang, Q., Zhang, G., and Chen, Y., Design of a Simulation and Test System for CCD Controller; *TNS July 2019 1267-1272*
- Wang, J.**, see Jiang, W., *TNS July 2019 1190-1193*
- Wang, J.**, see Li, C., *TNS July 2019 1042-1047*
- Wang, J.**, see Li, J., *TNS July 2019 1194-1198*
- Wang, J.**, see Wang, Z., *TNS Aug. 2019 1998-2004*
- Wang, J.**, Ma, J., Qiu, J., Tian, D., Zhu, A., Zhang, Q., and Zhou, A., Optimization Design of Radiation Vault in Jupiter Orbiting Mission; *TNS Oct. 2019 2179-2187*
- Wang, J.**, see Feng, Y., *TNS Oct. 2019 2286-2292*
- Wang, J.**, see Feng, Y., *TNS Oct. 2019 2286-2292*
- Wang, K.**, see Lu, B., *TNS Feb. 2019 597-608*
- Wang, L.**, see Pan, S., *TNS Feb. 2019 549-556*
- Wang, L.**, see Shu, L., *TNS April 2019 710-715*
- Wang, L.**, Shu, L., Liu, J., Zhao, Y., Li, Y., Wang, D., Li, T., and Sui, C., Analysis of Clock Single-Event Transients in VLSI Through Built-In Scan Chains; *TNS June 2019 875-879*
- Wang, L.**, see Zheng, Q., *TNS June 2019 892-898*
- Wang, L.**, see Chen, H., *TNS Aug. 2019 2005-2010*
- Wang, P.**, Pantelides, S.T., Vogel, E.M., Perini, C.J., O'Hara, A., Gong, H., Zhang, E.X., Mccurdy, M.W., Fleetwood, D.M., and Schrimpf, R.D., Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS₂-Interlayer-MoS₂ Tunneling Junctions; *TNS Jan. 2019 420-427*
- Wang, P.**, see Wang, P., *TNS Jan. 2019 420-427*
- Wang, P.**, see Jiang, R., *TNS Jan. 2019 170-176*
- Wang, P.**, see Liang, C., *TNS Jan. 2019 384-388*
- Wang, P.**, Pantelides, S.T., Roy, T., Kalita, H., Krishnaprasad, A., Dev, D., O'Hara, A., Jiang, R., Zhang, E., Fleetwood, D.M., and Schrimpf, R.D., Total-Ionizing-Dose Response of MoS₂ Transistors With ZrO₂ and h-BN Gate Dielectrics; *TNS July 2019 1584-1591*
- Wang, P.**, see Zhao, S.E., *TNS July 2019 1599-1605*
- Wang, P.C.**, see Yu, T., *TNS July 2019 1095-1099*
- Wang, Q.**, see Yu, T., *TNS July 2019 1095-1099*
- Wang, S.**, see Wang, J., *TNS March 2019 609-615*
- Wang, S.**, Xu, W., Xuan, K., and Li, J., Online Betatron Tune Feedback in the HLS-II Storage Ring; *TNS April 2019 696-701*
- Wang, S.**, see Shen, Z., *TNS Aug. 2019 2017-2021*
- Wang, T.**, see Ding, L., *TNS June 2019 866-874*
- Wang, T.F.**, see Yu, T., *TNS July 2019 1095-1099*
- Wang, X.**, see Pan, S., *TNS Feb. 2019 549-556*
- Wang, X.**, see Li, X., *TNS Jan. 2019 199-206*
- Wang, X.**, see Li, L., *TNS April 2019 716-723*
- Wang, X.**, see Chen, W., *TNS June 2019 856-865*
- Wang, X.**, see Yao, S., *TNS July 2019 1557-1565*
- Wang, X.**, Li, F., Liu, S., Miao, P., Zhang, Z., Geng, T., Zhou, S., and Jin, G., A Scanning Test System of p/sFEB Based on FPGA XADC for the ATLAS Phase-I sTGC Upgrade; *TNS July 2019 1249-1253*
- Wang, X.**, see Miryala, S., *TNS Nov. 2019 2338-2345*
- Wang, Y.**, see Lu, B., *TNS Feb. 2019 597-608*
- Wang, Y.**, see Privat, A., *TNS Jan. 2019 190-198*
- Wang, Y.**, see Chen, J., *TNS May 2019 820-826*
- Wang, Y.**, see Luo, Y., *TNS July 2019 1848-1853*
- Wang, Y.**, see Chen, Y., *TNS July 2019 1304-1309*
- Wang, Y.**, Liu, S., Feng, C., Shen, Z., Zhang, J., Hong, D., Liu, J., and Zhou, Y., Readout Electronics for CEPC Semidigital Hadron Calorimeter Preprototype; *TNS July 2019 1064-1069*
- Wang, Y.**, see Wen, F., *TNS July 2019 1340-1345*
- Wang, Y.**, Wang, F., Ji, Z.S., and Li, S., A New Analog Integrator for Magnetic Diagnostics on EAST; *TNS July 2019 1335-1339*
- Wang, Y.**, Zhou, X., Song, Z., Kuang, J., and Cao, Q., A 3.0-ps rms Precision 277-MSamples/s Throughput Time-to-Digital Converter Using Multi-Edge Encoding Scheme in a Kintex-7 FPGA; *TNS Oct. 2019 2275-2281*
- Wang, Y.**, see Yu, H., *TNS Dec. 2019 2435-2439*
- Wang, Y.F.**, see Yu, T., *TNS July 2019 1095-1099*
- Wang, Z.**, see Wang, B., *TNS Jan. 2019 77-81*
- Wang, Z.**, Ma, W., Sheng, J., Dong, G., Xue, Y., Liu, M., Xu, R., Ning, H., Gao, W., Yao, Z., He, B., and Jin, J., Transient Response in PPD CMOS Image Sensors Irradiated by Gamma Rays: Variation of Dose Rates and Integration Times; *TNS June 2019 880-885*
- Wang, Z.**, see Zhao, W., *TNS July 2019 1491-1499*
- Wang, Z.**, see Wu, M., *TNS July 2019 1820-1827*
- Wang, Z.**, see Wang, J., *TNS July 2019 1267-1272*
- Wang, Z.**, see Yu, T., *TNS July 2019 1095-1099*
- Wang, Z.**, Zhang, H., Chen, J., Wang, J., Chen, Y., Jia, M., Zhang, G., Tang, Q., Chen, J., Zhang, Y., and Zhang, J., Design of EPICS and Web-Based Remote Control Software of Near-Infrared Sky Brightness Monitor in Antarctica; *TNS Aug. 2019 1998-2004*
- Wang, Z.H.**, see Yu, T., *TNS July 2019 1095-1099*
- Warner, J.H.**, see Cho, M., *TNS Jan. 2019 240-247*
- Warner, J.H.**, see Omprakash, A.P., *TNS Jan. 2019 389-396*
- Warner, J.H.**, see Ildefonso, A., *TNS Jan. 2019 359-367*
- Warner, J.H.**, Hoheisel, R., Cress, C.D., Jenkins, P.P., Lorentzen, J.R., Scheiman, D.A., and Yakes, M.K., A Low-Power, Real-Time Displacement Damage Dosimeter; *TNS Jan. 2019 290-298*
- Warren, K.M.**, see Black, J.D., *TNS Jan. 2019 233-239*
- Wart, M.**, see Bhattacharya, P., *TNS Sept. 2019 2136-2139*
- Wart, M.**, see Miller, S.R., *TNS Oct. 2019 2261-2264*
- Wart, M.**, see Miller, S.R., *TNS Oct. 2019 2229-2232*
- Waskiewicz, R.J.**, see Ashton, J.P., *TNS Jan. 2019 428-436*
- Waskiewicz, R.J.**, see Myers, K.J., *TNS Jan. 2019 405-412*
- Watanabe, Y.**, see Abe, S., *TNS July 2019 1374-1380*
- Watanabe, Y.**, see Manabe, S., *TNS July 2019 1398-1403*
- Watanabe, Y.**, see Liao, W., *TNS July 2019 1390-1397*
- Watkins, A.**, see Quinn, H., *TNS Jan. 2019 140-147*
- Weber, D.C.**, see Carmona, P.F., *TNS July 2019 1280-1286*
- Weber, M.**, see Sander, O., *TNS July 2019 1204-1209*
- Weeden-Wright, S.L.**, see Fang, J., *TNS Jan. 2019 444-451*
- Wegner, M.**, see Sander, O., *TNS July 2019 1204-1209*
- Wei, L.**, see Zhu, J., *TNS July 2019 1130-1137*
- Wei, X.**, see Yao, S., *TNS July 2019 1557-1565*
- Wei, Y.**, see Chen, W., *TNS June 2019 856-865*
- Weller, R.A.**, see Fang, J., *TNS Jan. 2019 444-451*
- Weller, R.A.**, see Black, J.D., *TNS Jan. 2019 233-239*
- Weller, R.A.**, see Liao, W., *TNS July 2019 1730-1737*
- Wen, F.**, Wu, M., Li, G., Zhang, S., Gao, X., Xiang, H., Zhang, T., Wang, Y., Han, X., Qu, H., Zhong, F., Geng, K., and Ye, K., Upgrade of the Data Acquisition and Control System of Microwave Reflectometry on the Experimental Advanced Superconducting Tokamak; *TNS July 2019 1340-1345*
- Wen, J.**, see Yu, T., *TNS July 2019 1095-1099*
- Wen, Z.W.**, see Yu, T., *TNS July 2019 1095-1099*
- Wenninger, J.**, see de Cataldo, G., *TNS May 2019 763-770*
- Wessels, A.L.**, see Becker, D.T., *TNS Dec. 2019 2355-2363*
- White, T.**, see Belanger-Champagne, C., *TNS Jan. 2019 487-496*
- Whitlock, R.**, see VanDerwerken, D., *TNS Sept. 2019 2080-2087*
- Wierman, K.**, see Borga, A., *TNS July 2019 993-997*
- Wilkens, H.**, see Fernandez-Martinez, P., *TNS July 2019 1523-1531*
- Wilkins, R.**, see Akturk, A., *TNS July 2019 1828-1832*
- Williams, A.M.**, see Conway, P.M., *TNS Jan. 2019 466-473*
- Williamson, G.**, see Hansen, D.L., *TNS Jan. 2019 270-275*
- Wilson, B.**, see Libano, F., *TNS Jan. 2019 216-222*
- Wilson, P.**, see Radtke, J., *TNS Oct. 2019 2160-2169*
- Winkler, A.**, see Kalliokoski, M., *TNS May 2019 846-851*
- Wintz, P.**, see Jokhovets, L., *TNS Aug. 2019 1942-1951*
- Wirthlin, M.J.**, see Bohman, M., *TNS Jan. 2019 223-232*
- Wirthlin, M.J.**, see Cannon, M.J., *TNS Jan. 2019 207-215*
- Wirthlin, M.J.**, see Libano, F., *TNS Jan. 2019 216-222*
- Witczak, S.C.**, Messenger, S.R., Fleetwood, D.M., Schrimpf, R.D., Langlois, M.S., Codie Mishler, M., and Adams, D.A., Damage Separation in a Bipolar Junction Transistor Following Irradiation With 250-MeV Protons; *TNS May 2019 795-800*
- Witte, H.**, see Vega, N.A., *TNS Dec. 2019 2417-2421*
- Witulski, A.F.**, see Ball, D.R., *TNS Jan. 2019 337-343*

- Witulski, A.F.**, *see* Howard, J.T., *TNS Jan. 2019 184-189*
- Witulski, A.F.**, *see* Johnson, R.A., *TNS July 2019 1694-1701*
- Witulski, A.F.**, Daniel, A., Privat, A., Barnaby, H., Mahadevan, N., Kauppila, J., Karsai, G., Sternberg, A., Schrimpf, R.D., Reed, R.A., Adell, P., and Schone, H., Simulation of Transistor-Level Radiation Effects on System-Level Performance Parameters; *TNS July 2019 1634-1641*
- Wolk, A.**, *see* Schacht, J., *TNS July 2019 1262-1266*
- Wood, C.E.**, O'Brien, N., Denysov, A., and Blumensath, T., Computed Laminography of CFRP Using an X-Ray Cone-Beam and Robotic Sample Manipulator Systems; *TNS March 2019 655-663*
- Wood, L.**, *see* Borga, A., *TNS July 2019 993-997*
- Woodworth, A.A.**, *see* McPherson, J.A., *TNS Jan. 2019 474-481*
- Woody, C.**, *see* Azmoun, B., *TNS Aug. 2019 1984-1992*
- Woody, C.L.**, *see* Biro, B., *TNS July 2019 1833-1839*
- Wright, D.**, *see* Blackmore, E., *TNS Jan. 2019 276-281*
- Wrobel, F.**, *see* Aguiar, Y.Q., *TNS July 2019 1465-1472*
- Wrobel, F.**, *see* Cecchetto, M., *TNS July 2019 1532-1540*
- Wrobel, F.**, *see* Bruccoli, M., *TNS July 2019 1620-1627*
- Wu, H.**, *see* Cao, L., *TNS April 2019 742-751*
- Wu, M.**, Tang, Y., Gao, W., Liu, Y., Zhang, J., Wang, Z., Chen, W., and Zhang, Y., Proton Irradiation-Induced Random Telegraph Signal Noise in a $2k \times 2k$ 4T CMOS Active Pixel Sensor: Testing, Detection, and Modeling; *TNS July 2019 1820-1827*
- Wu, M.**, *see* Wen, F., *TNS July 2019 1340-1345*
- Wu, Q.**, *see* Lin, Q., *TNS Dec. 2019 2364-2378*
- Wu, Q.B.**, *see* Yu, T., *TNS July 2019 1095-1099*
- Wu, W.**, FELIX: the New Detector Interface for the ATLAS Experiment; *TNS July 2019 986-992*
- Wu, X.**, *see* Yu, T., *TNS July 2019 1095-1099*
- Wu, X.G.**, *see* Yu, T., *TNS July 2019 1095-1099*
- Wu, Y.**, *see* Yu, H., *TNS Dec. 2019 2435-2439*
- Wu, Y.**, *see* Zhou, X., *TNS Nov. 2019 2312-2318*
- Wu, Z.**, Chen, S., Chen, J., and Huang, P., Impacts of Proton Radiation on Heavy-Ion-Induced Single-Event Transients in 65-nm CMOS Technology; *TNS Jan. 2019 177-183*
- Wunderer, C.**, *see* Hansen, K., *TNS Aug. 2019 1966-1975*
- Wustenhagen, E.**, *see* Hansen, K., *TNS Aug. 2019 1966-1975*
- Wyrwoll, V.**, *see* Alia, R.G., *TNS Jan. 2019 458-465*
- Wyrwoll, V.**, *see* Fernandez-Martinez, P., *TNS July 2019 1523-1531*

X

- Xapsos, M.**, A Brief History of Space Climatology: From the Big Bang to the Present; *TNS Jan. 2019 17-37*
- Xi, C.**, *see* Hengzhou, Y., *TNS July 2019 1483-1490*
- Xi, K.**, *see* Zhang, Z., *TNS July 2019 1368-1373*
- Xia, T.**, *see* Zhou, X., *TNS Nov. 2019 2312-2318*
- Xiang, H.**, *see* Wen, F., *TNS July 2019 1340-1345*
- Xiao, B.**, *see* Chen, Y., *TNS July 2019 1304-1309*
- Xiao, L.**, *see* Zhou, W., *TNS July 2019 1115-1122*
- Xie, H.**, Li, Y., Shen, Q., Liao, S., and Peng, C., A High-Precision 2.5-ps RMS Time Synchronization for Multiple High-Speed Transceivers in FPGA; *TNS July 2019 1070-1075*
- Xie, L.K.**, *see* Yu, T., *TNS July 2019 1095-1099*
- Xie, S.**, Xu, J., Yang, M., Ying, G., Zhang, X., Huang, Q., and Peng, Q., Methods to Improve Light Transport Efficiency in LYSO Crystals Based on Characteristics of Optical Reflectance; *TNS Sept. 2019 2100-2106*
- Xie, X.**, Zhu, H., Zhang, M., Liu, X., Dai, L., Bi, D., Hu, Z., Zhang, Z., and Zou, S., An Analytical Study of the Effect of Total Ionizing Dose on Body Current in 130-nm PDSOI I/O nMOSFETs; *TNS March 2019 625-634*
- Xu, C.**, *see* Hu, C., *TNS July 2019 1854-1860*
- Xu, C.**, *see* Sun, X., *TNS July 2019 1330-1334*
- Xu, H.**, *see* Besin, D., *TNS Aug. 2019 2011-2016*
- Xu, J.**, *see* Xie, S., *TNS Sept. 2019 2100-2106*
- Xu, L.**, *see* Zheng, Q., *TNS April 2019 702-709*
- Xu, R.**, *see* Wang, Z., *TNS June 2019 880-885*
- Xu, W.**, *see* Wang, S., *TNS April 2019 696-701*

- Xu, W.**, *see* Zhou, Y., *TNS Oct. 2019 2239-2244*
- Xu, Y.**, *see* Guo, C., *TNS July 2019 1222-1227*
- Xu, Y.**, Lin, J., Li, Y., Dai, H., Liao, S., and Peng, C., Active Phase Stabilization for the Interferometer With 128 Actively Selectable Paths; *TNS July 2019 1076-1080*
- Xu, Y.**, *see* Feng, Y., *TNS Oct. 2019 2286-2292*
- Xu, Z.**, *see* Wang, J., *TNS March 2019 609-615*
- Xuan, K.**, *see* Wang, S., *TNS April 2019 696-701*
- Xue, C.**, *see* Yu, H., *TNS Dec. 2019 2435-2439*
- Xue, Q.**, *see* Zhao, S., *TNS July 2019 1107-1114*
- Xue, T.**, *see* Zhu, J., *TNS July 2019 1130-1137*
- Xue, Y.**, *see* Wang, Z., *TNS June 2019 880-885*

Y

- Yakes, M.K.**, *see* Warner, J.H., *TNS Jan. 2019 290-298*
- Yamada, K.**, Ebara, M., Kojima, K., Tsukita, Y., Furuta, J., and Kobayashi, K., Radiation-Hardened Structure to Reduce Sensitive Range of a Stacked Structure for FDSOI; *TNS July 2019 1418-1426*
- Yamamoto, S.**, Kamada, K., and Yoshikawa, A., Investigation of the Relation of Decay Time Differences and α - β Ratios for Newly Developed Scintillators; *TNS Nov. 2019 2324-2328*
- Yamamoto, T.**, *see* Inome, Y., *TNS Aug. 2019 1993-1997*
- Yaman, F.**, *see* Karatay, A., *TNS Nov. 2019 2295-2304*
- Yamaya, T.**, *see* Inadama, N., *TNS Jan. 2019 497-505*
- Yamazaki, T.**, *see* Kato, T., *TNS July 2019 1381-1389*
- Yan, B.**, *see* Zheng, Z., *TNS Feb. 2019 585-596*
- Yan, D.**, *see* Jiang, R., *TNS Jan. 2019 170-176*
- Yan, L.**, Zhao, L., Liu, J., Dong, R., Jiang, Z., Liu, S., and An, Q., High-Speed RF Switch Electronics for Picking Up of Electron-Positron Beam Bunches; *TNS July 2019 1081-1087*
- Yan, X.**, *see* Lv, L., *TNS June 2019 886-891*
- Yang, C.**, Feng, C., Liu, J., Teng, Y., Liu, S., An, Q., Sun, X., and Yang, P., A Prototype Readout System for the ALPIDE Pixel Sensor; *TNS July 2019 1088-1094*
- Yang, D.**, *see* Feng, Y., *TNS Oct. 2019 2286-2292*
- Yang, F.**, Chen, J., Zhang, L., Hu, C., and Zhu, R., La- and La/Ce-Doped BaF₂ Crystals for Future HEP Experiments at the Energy and Intensity Frontiers Part I; *TNS Jan. 2019 506-511*
- Yang, F.**, Chen, J., Zhang, L., Hu, C., and Zhu, R., La- and La/Ce-Doped BaF₂ Crystals for Future HEP Experiments at the Energy and Intensity Frontiers Part II; *TNS Jan. 2019 512-518*
- Yang, G.**, *see* Hengzhou, Y., *TNS July 2019 1483-1490*
- Yang, J.**, *see* Li, L., *TNS April 2019 716-723*
- Yang, J.**, *see* Li, X., *TNS July 2019 1612-1619*
- Yang, J.**, Li, H., Dong, S., and Li, X., Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions; *TNS Sept. 2019 2042-2047*
- Yang, L.**, *see* Lv, L., *TNS June 2019 886-891*
- Yang, M.**, Distributed Parameter Control Method for Axial Neutron Flux in Fast Nuclear Reactor; *TNS June 2019 899-910*
- Yang, M.**, *see* Xie, S., *TNS Sept. 2019 2100-2106*
- Yang, M.**, *see* Lin, Q., *TNS Dec. 2019 2364-2378*
- Yang, P.**, *see* Yang, C., *TNS July 2019 1088-1094*
- Yang, S.**, *see* Foran, B., *TNS Jan. 2019 413-419*
- Yang, S.**, *see* Chen, W., *TNS June 2019 856-865*
- Yang, T.**, *see* Montes, J., *TNS Jan. 2019 91-96*
- Yang, Y.W.**, *see* Yu, T., *TNS July 2019 1095-1099*
- Yang, Z.**, Lai, P., and Sheu, R., Update and New Features of NTHU Flight Dose Calculator: A Tool for Estimating Aviation Route Doses and Cumulative Spectra of Cosmic Rays in Atmosphere; *TNS Aug. 2019 1931-1941*
- Yang-Scharlotta, J.**, *see* Holt, J.S., *TNS Dec. 2019 2398-2407*
- Yao, S.**, *see* Li, X., *TNS Jan. 2019 199-206*
- Yao, S.**, Wei, X., Chang, Y., Lu, W., Yu, X., Guo, Q., He, C., Li, X., Wang, X., Liu, M., and Sun, J., Using a Temperature-Switching Approach to Evaluate Low-Dose-Rate Ionizing Radiation Effects on SET in Linear Bipolar Circuits; *TNS July 2019 1557-1565*
- Yao, Y.**, *see* Duan, Y., *TNS Aug. 2019 1976-1983*

- Yao, Z.**, see Wang, Z., *TNS June 2019* 880-885
- Yaoqing, C.**, see Hengzhou, Y., *TNS July 2019* 1483-1490
- Yarita, K.**, see Hagino, K., *TNS July 2019* 1897-1905
- Ye, J.**, see Zhou, W., *TNS July 2019* 1115-1122
- Ye, K.**, see Wen, F., *TNS July 2019* 1340-1345
- Ye, S.**, see Kim, H.S., *TNS Sept. 2019* 2114-2122
- Ye, Z.**, Liu, R., Taggart, J.L., Barnaby, H.J., and Yu, S., Evaluation of Radiation Effects in RRAM-Based Neuromorphic Computing System for Inference; *TNS Jan. 2019* 97-103
- Yellapu, V.S.**, Vajpayee, V., and Tiwari, A.P., Online Fault Detection and Isolation in Advanced Heavy Water Reactor Using Multiscale Principal Component Analysis; *TNS July 2019* 1790-1803
- Yi, H.**, see Yu, T., *TNS July 2019* 1095-1099
- Yi, T.**, see Lu, B., *TNS Feb. 2019* 597-608
- Ying, G.**, see Xie, S., *TNS Sept. 2019* 2100-2106
- Yitzhak, N.M.**, see Keren, E., *TNS June 2019* 946-954
- Yokkaichi, S.**, see Ichikawa, M., *TNS Aug. 2019* 2022-2027
- York, M.C.A.**, Proulx, F., Gilard, O., Bechou, L., Ares, R., Aimez, V., Masson, D.P., and Fafard, S., III-V Laser Power Converters With Vertically Stacked Subcells Demonstrating Superior Radiation Resilience; *TNS June 2019* 938-945
- Yoshii, M.**, see Tamura, F., *TNS July 2019* 1242-1248
- Yoshikawa, A.**, see Yamamoto, S., *TNS Nov. 2019* 2324-2328
- You, Z.**, see Wang, J., *TNS March 2019* 609-615
- Young, C.D.**, see Ashton, J.P., *TNS Jan. 2019* 428-436
- Young, C.D.**, see Myers, K.J., *TNS Jan. 2019* 405-412
- Yu, F.**, see Zheng, Z., *TNS Oct. 2019* 2207-2214
- Yu, H.**, Tai, R., Meng, X., Chen, Z., Zhen, X., Zhao, J., Xue, C., Guo, Z., Wang, Y., and Wu, Y., Significant Enhancement in Light Output of Photonic-Crystal-Based YAG:Ce Scintillator for Soft X-Ray Detectors; *TNS Dec. 2019* 2435-2439
- Yu, H.**, see Hwang, S., *TNS Nov. 2019* 2329-2332
- Yu, L.**, see Yu, T., *TNS July 2019* 1095-1099
- Yu, Q.**, see Lu, B., *TNS Feb. 2019* 597-608
- Yu, S.**, see Ye, Z., *TNS Jan. 2019* 97-103
- Yu, T.**, Cheng, P.J., Cui, Z.Q., Fan, R.R., Feng, C.Q., Gu, M.H., Han, Z.J., He, G.Z., He, Y.C., He, Y.F., Huang, H.X., Cao, P., Huang, W.L., Ji, X.L., Jiang, H.Y., Jiang, W., Jing, H.T., Kang, L., Li, B., Li, L., Li, Q., Li, X., Ji, X.Y., Li, Y., Liu, R., Liu, S.B., Liu, X.Y., Luan, G.Y., Ma, Y.L., Ning, C.J., Ren, J., Ruan, X.C., Song, Z.H., Xie, L.K., Sun, H., Sun, X.Y., Sun, Z.J., Tan, Z.X., Tang, J.Y., Tang, H.Q., Wang, P.C., Wang, Q., Wang, T.F., Wang, Y.F., Huang, X.R., Wang, Z.H., Wang, Z., Wen, J., Wen, Z.W., Wu, Q.B., Wu, X.G., Wu, X., Yang, Y.W., Yi, H., Yu, L., An, Q., Yu, Y.J., Zhang, G.H., Zhang, L.Y., Zhang, J., Zhang, Q.M., Zhang, Q.W., Zhang, X.P., Zhao, Y.T., Zhong, Q.P., Zhou, L., Bai, H.Y., Zhou, Z.Y., Zhu, K.J., Bao, J., and Chen, Y.H., Electronics of Time-of-Flight Measurement for Back-n at CSNS; *TNS July 2019* 1095-1099
- Yu, X.**, see Li, X., *TNS Jan. 2019* 199-206
- Yu, X.**, see Zheng, Q., *TNS April 2019* 702-709
- Yu, X.**, see Zheng, Q., *TNS June 2019* 892-898
- Yu, X.**, see Yao, S., *TNS July 2019* 1557-1565
- Yu, Y.**, see Zhang, D., *TNS Oct. 2019* 2215-2219
- Yu, Y.J.**, see Yu, T., *TNS July 2019* 1095-1099
- Yuan, J.**, Cao, P., Huang, X., Li, C., and An, Q., Readout Method Based on PCIe Over Optical Fiber for CBM-TOF Super Module Quality Evaluation; *TNS July 2019* 1165-1168
- Yuan, J.**, see Jiang, W., *TNS July 2019* 1190-1193
- Yuan, J.**, see Li, J., *TNS July 2019* 1194-1198
- Yuan, Y.**, see Chang, J., *TNS July 2019* 1782-1789
- Yuan, Z.**, see Shu, L., *TNS April 2019* 710-715
- Yue, S.**, see Zheng, Q., *TNS June 2019* 892-898
- Yukamoto, M.**, see Hagino, K., *TNS July 2019* 1897-1905
- Z**
- Zachary, F.E.**, see Cho, M., *TNS Jan. 2019* 240-247
- Zadeh, A.**, see Bagatin, M., *TNS Jan. 2019* 48-53
- Zaunick, H.**, see Korjik, M., *TNS Jan. 2019* 536-540
- Zeides, O.**, see Hansen, K., *TNS Aug. 2019* 1966-1975
- Zeinolabedinzadeh, S.**, see Goley, P.S., *TNS Jan. 2019* 125-133
- Zeng, G.**, see Li, L., *TNS April 2019* 716-723
- Zeng, T.**, Li, F., and Zhu, K., JUNO DAQ Readout and Event Building Research; *TNS July 2019* 1217-1221
- Zhang, A.**, see Azmoun, B., *TNS Aug. 2019* 1984-1992
- Zhang, C.**, Jazaeri, F., Borghello, G., Faccio, F., Mattiazzo, S., Baschiroto, A., and Enz, C., Characterization and Modeling of Gigarad-TID-Induced Drain Leakage Current of 28-nm Bulk MOSFETs; *TNS Jan. 2019* 38-47
- Zhang, C.**, and Hasan, S.M.R., A New Floating-gate Radiation Sensor and Readout Circuit in Standard Single-Poly 130-nm CMOS Technology; *TNS July 2019* 1906-1915
- Zhang, D.**, Cheng, X., Shen, L., Zheng, L., Gu, Z., Zhou, W., Liu, X., and Yu, Y., Influence of Poly-AlN Passivation on the Performance Improvement of 3-MeV Proton-Irradiated AlGaIn/GaN MIS-HEMTs; *TNS Oct. 2019* 2215-2219
- Zhang, E.**, see Johnson, R.A., *TNS July 2019* 1694-1701
- Zhang, E.**, see Wang, P., *TNS July 2019* 1584-1591
- Zhang, E.X.**, see Wang, P., *TNS Jan. 2019* 420-427
- Zhang, E.X.**, see Jiang, R., *TNS Jan. 2019* 170-176
- Zhang, E.X.**, see Gong, H., *TNS Jan. 2019* 376-383
- Zhang, E.X.**, see Liang, C., *TNS Jan. 2019* 384-388
- Zhang, E.X.**, see Goley, P.S., *TNS Jan. 2019* 125-133
- Zhang, E.X.**, see Harrington, R.C., *TNS June 2019* 932-937
- Zhang, E.X.**, see Haeffner, T.D., *TNS June 2019* 911-917
- Zhang, E.X.**, see Liao, W., *TNS July 2019* 1730-1737
- Zhang, E.X.**, see Zhao, S.E., *TNS July 2019* 1599-1605
- Zhang, E.X.**, see Harrington, R.C., *TNS July 2019* 1427-1432
- Zhang, F.**, see Chen, W., *TNS June 2019* 856-865
- Zhang, F.**, see Ding, L., *TNS June 2019* 866-874
- Zhang, F.**, see Zhao, W., *TNS July 2019* 1491-1499
- Zhang, F.**, see Luo, Y., *TNS July 2019* 1848-1853
- Zhang, G.**, see Wang, J., *TNS July 2019* 1267-1272
- Zhang, G.**, see Wang, Z., *TNS Aug. 2019* 1998-2004
- Zhang, G.**, see Feng, Y., *TNS Oct. 2019* 2286-2292
- Zhang, G.H.**, see Yu, T., *TNS July 2019* 1095-1099
- Zhang, H.**, see Wang, J., *TNS July 2019* 1267-1272
- Zhang, H.**, see Wang, Z., *TNS Aug. 2019* 1998-2004
- Zhang, H.**, see Feng, Y., *TNS Oct. 2019* 2286-2292
- Zhang, J.**, see Wu, M., *TNS July 2019* 1820-1827
- Zhang, J.**, Li, H., and Jiang, X., The MicroTCA Fast Control Board for Generic Control and Data Acquisition Applications in HEP Experiments; *TNS July 2019* 1169-1173
- Zhang, J.**, see Wang, Y., *TNS July 2019* 1064-1069
- Zhang, J.**, see Yu, T., *TNS July 2019* 1095-1099
- Zhang, J.**, see Wang, Z., *TNS Aug. 2019* 1998-2004
- Zhang, L.**, see Yang, F., *TNS Jan. 2019* 506-511
- Zhang, L.**, see Yang, F., *TNS Jan. 2019* 512-518
- Zhang, L.**, see Hu, C., *TNS July 2019* 1854-1860
- Zhang, L.Y.**, see Yu, T., *TNS July 2019* 1095-1099
- Zhang, M.**, see Xie, X., *TNS March 2019* 625-634
- Zhang, Q.**, see Wang, J., *TNS Feb. 2019* 557-566
- Zhang, Q.**, see Hu, C., *TNS July 2019* 1854-1860
- Zhang, Q.**, see Wang, J., *TNS Oct. 2019* 2179-2187
- Zhang, Q.M.**, see Yu, T., *TNS July 2019* 1095-1099
- Zhang, Q.W.**, see Yu, T., *TNS July 2019* 1095-1099
- Zhang, S.**, Zhou, N., Deng, F., and Liang, H., A Voltage Pulse Generator for Measurement-Device-Independent Quantum Key Distribution; *TNS July 2019* 1100-1106
- Zhang, S.**, see Wen, F., *TNS July 2019* 1340-1345
- Zhang, T.**, see Wen, F., *TNS July 2019* 1340-1345
- Zhang, W.**, see Zheng, Z., *TNS Feb. 2019* 585-596
- Zhang, W.**, see Chang, J., *TNS July 2019* 1782-1789
- Zhang, X.**, see Ren, Z., *TNS July 2019* 1592-1598
- Zhang, X.**, see Ren, Z., *TNS July 2019* 1592-1598
- Zhang, X.**, see Xie, S., *TNS Sept. 2019* 2100-2106

- Zhang, X.**, see Lin, Q., *TNS Dec. 2019 2364-2378*
- Zhang, X.P.**, see Yu, T., *TNS July 2019 1095-1099*
- Zhang, Y.**, see Wang, B., *TNS Jan. 2019 77-81*
- Zhang, Y.**, see Wu, M., *TNS July 2019 1820-1827*
- Zhang, Y.**, see Wang, J., *TNS July 2019 1267-1272*
- Zhang, Y.**, see Zhao, S., *TNS July 2019 1107-1114*
- Zhang, Y.**, see Wang, Z., *TNS Aug. 2019 1998-2004*
- Zhang, Y.**, see Feng, Y., *TNS Oct. 2019 2286-2292*
- Zhang, Z.**, see Xie, X., *TNS March 2019 625-634*
- Zhang, Z.**, En, Y., Lei, Z., Tong, T., Li, X., Xi, K., Peng, C., Shi, Q., He, Y., and Huang, Y., Tibetan-Plateau-Based Real-Time Testing and Simulations of Single-Bit and Multiple-Cell Upsets in QDRII+ SRAM Devices; *TNS July 2019 1368-1373*
- Zhang, Z.**, see Wang, X., *TNS July 2019 1249-1253*
- Zhang, Z.**, see Lu, H., *TNS Aug. 2019 2028-2032*
- Zhang, Z.**, see Peng, C., *TNS Oct. 2019 2170-2178*
- Zhao, J.**, see Yu, H., *TNS Dec. 2019 2435-2439*
- Zhao, K.**, see Zheng, Q., *TNS April 2019 702-709*
- Zhao, K.**, see Zheng, Z., *TNS Oct. 2019 2207-2214*
- Zhao, L.**, see Lu, J., *TNS July 2019 1287-1295*
- Zhao, L.**, see Yan, L., *TNS July 2019 1081-1087*
- Zhao, S.**, Liu, S., Shen, Z., Niu, Y., Xue, Q., Feng, C., An, Q., Zhang, Y., and Liu, J., The Readout Electronics Research Design and Development for CEPC Scintillators Electromagnetic Calorimeter Prototype; *TNS July 2019 1107-1114*
- Zhao, S.E.**, Collaert, N., Sioncke, S., Linten, D., Schrimpf, R.D., Reed, R.A., Gerardin, S., Paccagnella, A., Fleetwood, D.M., Bonaldo, S., Wang, P., Jiang, R., Gong, H., Zhang, E.X., Waldron, N., Kunert, B., and Mitard, J., Gate Bias and Length Dependences of Total Ionizing Dose Effects in InGaAs FinFETs on Bulk Si; *TNS July 2019 1599-1605*
- Zhao, W.**, see Wang, B., *TNS Jan. 2019 77-81*
- Zhao, W.**, He, C., Chen, W., Chen, R., Cong, P., Zhang, F., Wang, Z., Guo, X., and Ding, L., Single-Event Double Transients in Inverter Chains Designed With Different Transistor Widths; *TNS July 2019 1491-1499*
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- Zheng, Q.**, Ren, D., Yue, S., Zhao, Y., Guo, Q., Cui, J., Lu, W., Guo, H., Liu, J., Yu, X., Wang, L., Liu, J., and He, C., Total Ionizing Dose Influence on the Single-Event Multiple-Cell Upsets in 65-nm 6-T SRAM; *TNS June 2019 892-898*
- Zheng, Y.**, see Wang, J., *TNS Feb. 2019 557-566*
- Zheng, Z.**, Hu, Y., Cai, A., Zhang, W., Li, J., Yan, B., and Hu, G., Few-view computed tomography image reconstruction using mean curvature model with curvature smoothing and surface fitting; *TNS Feb. 2019 585-596*
- Zheng, Z.**, Liu, X., Zhao, X., Zhao, K., Gao, J., Li, B., Yu, F., Li, B., Luo, J., and Han, Z., Comparison of the Total Dose Responses of Fully Depleted SOI nMOSFETs With Different Geometries for the Worst Case Bias Conditions; *TNS Oct. 2019 2207-2214*
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- Zhou, L.**, Zhao, X., Chen, L., Huang, Z., He, Y., and Ouyang, X., Vertical Au/ZnO Schottky Barrier Diode Based on High-Resistivity ZnO Film for X-Ray Dose Measurement; *TNS July 2019 1916-1920*
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- Zhu, H.**, Altmann, Y., Fulvio, A.D., McLaughlin, S., Pozzi, S., and Hero, A., A Hierarchical Bayesian Approach to Neutron Spectrum Unfolding With Organic Scintillators; *TNS Oct. 2019 2265-2274*
- Zhu, J.**, Gong, G., Xue, T., Cao, Z., Wei, L., and Li, J., Preliminary Design of Integrated Digitizer Base for Photomultiplier Tube; *TNS July 2019 1130-1137*
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La- and La-/Ce-Doped BaF₂ Crystals for Future HEP Experiments at the Energy and Intensity Frontiers Part II. *Yang, F., +, TNS Jan. 2019 512-518*

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On the Instantaneous Dose Rate and Angular Dependence of Monolithic Silicon Array Detectors. *Biasi, G., +, TNS Jan. 2019 519-527*

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Message From the Editor for Contributions to the 2018 Real Time Conference Issue of TNS. *Schmeling, S.M., TNS July 2019 980*

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Current Gain Degradation Model of Displacement Damage for Drift BJTs. *Li, L., +, TNS April 2019 716-723*

Damage Separation in a Bipolar Junction Transistor Following Irradiation With 250-MeV Protons. *Witczak, S.C., +, TNS May 2019 795-800*

Multiscale Modeling of Total Ionizing Dose Effects in Commercial-off-the-Shelf Parts in Bipolar Technologies. *Privat, A.*, +, *TNS Jan. 2019 190-198*
 Synergistic Effects of TID and ATREE in Vertical NPN Bipolar Transistor. *Li, R.*, +, *TNS July 2019 1566-1573*
 Temperature-Switching During Irradiation as a Test for ELDRS in Linear Bipolar Devices. *Li, X.*, +, *TNS Jan. 2019 199-206*

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Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS₂-Interlayer-MoS₂ Tunneling Junctions. *Wang, P.*, +, *TNS Jan. 2019 420-427*

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Investigation of Deep Levels in CdZnTeSe Crystal and Their Effect on the Internal Electric Field of CdZnTeSe Gamma-Ray Detector. *Rejhon, M.*, +, *TNS Aug. 2019 1952-1958*

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ATLAS Tile Calorimeter Calibration and Monitoring Systems. *Marjanovic, M.*, *TNS July 2019 1228-1235*

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Development of Neutron Detector Based on Gd₃Ga₃Al₂O₁₂:Ce Single Crystals. *Tyagi, M.*, +, *TNS April 2019 724-728*

- Improvement of a PET Detector Performance by Setting Reflectors in Parallel With PMT Face. *Inadama, N.*, +, *TNS Jan. 2019* 497-505
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- La- and La-/Ce-Doped BaF_2 Crystals for Future HEP Experiments at the Energy and Intensity Frontiers Part I. *Yang, F.*, +, *TNS Jan. 2019* 506-511
- La- and La-/Ce-Doped BaF_2 Crystals for Future HEP Experiments at the Energy and Intensity Frontiers Part II. *Yang, F.*, +, *TNS Jan. 2019* 512-518
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- Design of a Nonvacuum-Cooling Compact CCD Camera for Scientific Detection. *Feng, Y.*, +, *TNS Oct. 2019* 2286-2292
- LiF/CsI:Tl Scintillator for High-Resolution Neutron Imaging. *Miller, S.R.*, +, *TNS Oct. 2019* 2261-2264
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- In Memoriam Shuming Chen (1961–2018). *TNS June 2019* 855
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- Circuit analysis computing**
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- A Single-Event Transient-Tolerant High-Frequency CMOS Quadrature Phase Oscillator. *Jagtap, S.*, +, *TNS Sept. 2019* 2072-2079
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- Proton Irradiation-Induced Random Telegraph Signal Noise in a $2k \times 2k$ 4T CMOS Active Pixel Sensor: Testing, Detection, and Modeling. *Wu, M.*, +, *TNS July 2019* 1820-1827
- Radiation Effects in Pinned Photodiode CMOS Image Sensors: Variation of Photodiode Implant Dose. *Belloir, J.*, +, *TNS July 2019* 1671-1681
- Radiation Hardness Comparison of CMOS Image Sensor Technologies at High Total Ionizing Dose Levels. *Rizzolo, S.*, +, *TNS Jan. 2019* 111-119
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- Transient Response in PPD CMOS Image Sensors Irradiated by Gamma Rays: Variation of Dose Rates and Integration Times. *Wang, Z.*, +, *TNS June 2019* 880-885
- CMOS integrated circuits**
- A New Floating-gate Radiation Sensor and Readout Circuit in Standard Single-Poly 130-nm CMOS Technology. *Zhang, C.*, +, *TNS July 2019* 1906-1915
- APDROC: A Front-End ASIC for APD Array Detector in High Time-Resolved Synchrotron Experiments. *Zhou, Y.*, +, *TNS Oct. 2019* 2239-2244
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- Charge Buildup and Spatial Distribution of Interface Traps in 65-nm pMOS-FETs Irradiated to Ultrahigh Doses. *Bonaldo, S.*, +, *TNS July 2019* 1574-1583
- Compact Modeling of Single-Event Latchup of Integrated CMOS Circuit. *Al Youssef, A.*, +, *TNS July 2019* 1510-1515
- Dark Count Rate Degradation in CMOS SPADs Exposed to X-Rays and Neutrons. *Ratti, L.*, +, *TNS Feb. 2019* 567-574
- Impacts of Proton Radiation on Heavy-Ion-Induced Single-Event Transients in 65-nm CMOS Technology. *Wu, Z.*, +, *TNS Jan. 2019* 177-183
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Pulse Quenching and Charge-Sharing Effects on Heavy-Ion Microbeam Induced ASET in a Full-Custom CMOS OpAmp. *Fontana, A.*, +, *TNS July 2019 1473-1482*

Qualification and Integration Aspects of the DSSC Mega-Pixel X-Ray Imager. *Hansen, K.*, +, *TNS Aug. 2019 1966-1975*

SENSROC12: A Four-Channel Binary-Output Front-End Readout ASIC for Si-PIN-Based Personal Dosimeters. *Duan, Y.*, +, *TNS Aug. 2019 1976-1983*

Single-Event Double Transients in Inverter Chains Designed With Different Transistor Widths. *Zhao, W.*, +, *TNS July 2019 1491-1499*

Single-Event Latchup in a CMOS-Based ASIC Using Heavy Ions, Laser Pulses, and Coupled Simulation. *Mauguet, M.*, +, *TNS July 2019 1516-1522*

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Single-Event Double Transients in Inverter Chains Designed With Different Transistor Widths. *Zhao, W.*, +, *TNS July 2019 1491-1499*

Single-Event Effects Induced on Atom Switch-based Field-Programmable Gate Array. *Takeuchi, K.*, +, *TNS July 2019 1355-1360*

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Thermal Study of the Ironless Inductive Position Sensors Installed on the LHC Collimators. *Grima, A.*, +, *TNS April 2019 688-695*

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Few-view computed tomography image reconstruction using mean curvature model with curvature smoothing and surface fitting. *Zheng, Z.*, +, *TNS Feb. 2019 585-596*

Method to Extract System-Independent Material Properties From Dual-Energy X-Ray CT. *Champley, K.M.*, +, *TNS March 2019 674-686*

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Core Power Control of a Nuclear Research Reactor During Power Maneuvering Transients Using Optimized PID-Controller Based on the Fractional Neutron Point Kinetics Model With Reactivity Feedback Effects. *Rafiei, M.*, +, *TNS July 2019 1804-1812*

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Cosmic ray interactions

Predicting Cosmic Ray-Induced Failures in Silicon Carbide Power Devices. *Akturk, A.*, +, *TNS July 2019 1828-1832*

Cosmic ray muons

Estimation of Muon-Induced SEU Rates for 65-nm Bulk and UTBB-SOI SRAMs. *Manabe, S.*, +, *TNS July 2019 1398-1403*

Cosmic ray neutrons

Predicting Cosmic Ray-Induced Failures in Silicon Carbide Power Devices. *Akturk, A.*, +, *TNS July 2019 1828-1832*

Cosmic ray protons

Impact of Earth's Magnetic Field Secular Drift on the Low-Altitude Proton Radiation Belt From 1900 to 2050. *Bourdarie, S.*, +, *TNS July 2019 1746-1752*

Cosmology

A Brief History of Space Climatology: From the Big Bang to the Present. *Xapsos, M.*, *TNS Jan. 2019 17-37*

Covariance matrices

Adaptive Unscented Kalman Filtering for Reactivity Estimation in Nuclear Power Plants. *Mishra, A.K.*, +, *TNS Dec. 2019 2388-2397*

Impact of Nuclear Data Uncertainty in the Modeling of Neutron-Induced Recoil Atom Energy Distributions in Silicon. *Griffin, P.J.*, +, *TNS July 2019 1719-1729*

Cryogenic electronics

Comparative Study of Cryogenic Versus Room-Temperature Proton Irradiation of N-Channel CCDs and Subsequent Annealing. *Prod'homme, T.*, +, *TNS Jan. 2019 134-139*

Cryogenics

CDP1—A Data Concentrator Prototype for the Deep Underground Neutrino Experiment. *Miryala, S.*, +, *TNS Nov. 2019 2338-2345*

European XFEL Superconducting Cryomodules Characterization Toward Modules Acceptance and Future LLRF Operation. *Cichalewski, W.*, +, *TNS Sept. 2019 2145-2152*

GaAs as a Bright Cryogenic Scintillator for the Detection of Low-Energy Electron Recoils From MeV/c² Dark Matter. *Vasiukov, S.*, +, *TNS Nov. 2019 2333-2337*

SEFI Modeling in Readout Integrated Circuit Induced by Heavy Ions at Cryogenic Temperatures. *Artola, L.*, +, *TNS Jan. 2019 452-457*

The Implementation of Data Acquisition System for EAST Technical Diagnostic System. *Chen, Y.*, +, *TNS July 2019 1304-1309*

Cryostats

FELIX-Based Readout of the Single-Phase ProtoDUNE Detector. *Borga, A.*, +, *TNS July 2019 993-997*

The DAQ for the Single-Phase DUNE Prototype at CERN. *Sipos, R.*, *TNS July 2019 1210-1216*

Crystal growth from melt

Codoped Lithium Sodium Iodide With Tl⁺ and Eu²⁺ Activators for Neutron Detector. *Bhattacharya, P.*, +, *TNS Sept. 2019 2136-2139*

Development of Yttrium-Doped BaF₂ Crystals for Future HEP Experiments. *Hu, C.*, +, *TNS July 2019 1854-1860*

Crystal structure

Codoped Lithium Sodium Iodide With Tl⁺ and Eu²⁺ Activators for Neutron Detector. *Bhattacharya, P.*, +, *TNS Sept. 2019 2136-2139*

Crystals

The Effect of Codoping on Pulse-Shape Discrimination Properties of Gd₃Ga₃Al₂O₁₂:Ce Single Crystals. *Rawat, S.*, +, *TNS Dec. 2019 2440-2445*

Current density

Comment on "Radial Dependence of Induced Current Density and Small Pixel Effect in Parallel-Plate Detectors". *Hwang, C.*, +, *TNS Sept. 2019 2153-2155*

Cyclotron radiation

Ultraenergetic Heavy-Ion Beams in the CERN Accelerator Complex for Radiation Effects Testing. *Alia, R.G.*, +, *TNS Jan. 2019 458-465*

Cyclotrons

Modular 20 kW, 83.2-MHz Solid-State RF Amplifier for a 10-MeV Cyclotron. *Song, H.S.*, +, *TNS Aug. 2019 1924-1930*

D**Dark conductivity**

Radiation Effects on High-Speed InGaAs Photodiodes. *Olantera, L.*, +, *TNS July 2019 1663-1670*

The Effect of Gamma Radiation Exposure on Active Silicon Photonic Device Performance Metrics. *Hoffman, G.B.*, +, *TNS May 2019 801-809*

Total Ionizing Dose Effects in 70-GHz Bandwidth Photodiodes in a SiGe Integrated Photonics Platform. *Goley, P.S.*, +, *TNS Jan. 2019 125-133*

Dark matter

GaAs as a Bright Cryogenic Scintillator for the Detection of Low-Energy Electron Recoils From MeV/c² Dark Matter. *Vasiukov, S.*, +, *TNS Nov. 2019 2333-2337*

Data acquisition

μTCA DAQ System and Parallel Reading in CANDLES Experiment. *Khair, B.T.*, +, *TNS July 2019 1174-1181*

An SOA-Based Design of JUNO DAQ Online Software. *Li, J.*, +, *TNS July 2019 1199-1203*

Automating Quality Assurance of a Medical Particle Accelerator Safety System Using a Formal Language Driven Test Stand. *Carmona, P.F.*, +, *TNS July 2019 1280-1286*

Back-End Electronics Based on an Asymmetric Network for Low Background and Medium-Scale Physics Experiments. *Calvet, D.*, *TNS July 2019 998-1006*

Clock Distribution and Readout Architecture for the ATLAS Tile Calorimeter at the HL-LHC. *Carrio, F.*, +, *TNS July 2019 1014-1020*

Data Acquisition Software for CBM-TOF Super Module Quality Control. *Li, J.*, +, *TNS July 2019 1194-1198*

Design and Evaluation of the LAr Trigger Digitizer Board in the ATLAS Phase-I Upgrade. *Besin, D.*, +, *TNS Aug. 2019 2011-2016*

Design of a Nonvacuum-Cooling Compact CCD Camera for Scientific Detection. *Feng, Y.*, +, *TNS Oct. 2019 2286-2292*

Development of FEB Configuration Test Board for ATLAS NSW Upgrade. *Lu, H.*, +, *TNS Aug. 2019 2028-2032*

Electronics of Time-of-Flight Measurement for Back-n at CSNS. *Yu, T.*, +, *TNS July 2019 1095-1099*

FELIX-Based Readout of the Single-Phase ProtoDUNE Detector. *Borga, A.*, +, *TNS July 2019 993-997*

FELIX: the New Detector Interface for the ATLAS Experiment. *Wu, W.*, *TNS July 2019 986-992*

Flit-Level InfiniBand Network Simulations of the DAQ System of the LHCb Experiment for Run-3. *Colombo, T.*, +, *TNS July 2019 1159-1164*

FPGA Code for the Data Acquisition and Real-Time Processing Prototype of the ITER Radial Neutron Camera. *Fernandes, A.*, +, *TNS July 2019 1318-1323*

FPGA Implementation of RDMA-Based Data Acquisition System Over 100-Gb Ethernet. *Mansour, W.*, +, *TNS July 2019 1138-1143*

General Purpose Readout Board π LUP: Overview and Results. *Giangiacomi, N.*, +, *TNS July 2019 1021-1027*

High-Power Piezoelectric Tuner Driver for Lorentz Force Compensation. *Makowski, D.*, +, *TNS July 2019 1056-1063*

Improved Rise Approximation Method for Pulse Arrival Timing. *Jokhovets, L.*, +, *TNS Aug. 2019 1942-1951*

JUNO DAQ Readout and Event Building Research. *Zeng, T.*, +, *TNS July 2019 1217-1221*

Network Time Synchronization of the Readout Electronics for a New Radioactive Gas Detection System. *Hennig, W.*, +, *TNS July 2019 1182-1189*

OpenCL Implementation of an Adaptive Disruption Predictor Based on a Probabilistic Venn Classifier. *Carpino, A.*, +, *TNS July 2019 1007-1013*

PCIe Hot-Plug Support Standardization Challenges in ATCA. *Correia, M.*, +, *TNS Oct. 2019 2282-2285*

Preliminary Design of Integrated Digitizer Base for Photomultiplier Tube. *Zhu, J.*, +, *TNS July 2019 1130-1137*

Quality Evaluation Electronics for CBM-TOF Super Module. *Li, C.*, +, *TNS July 2019 1042-1047*

Readout Electronics for CBM-TOF Supermodule Quality Evaluation. *Jiang, W.*, +, *TNS July 2019 1190-1193*

Readout Method Based on PCIe Over Optical Fiber for CBM-TOF Super Module Quality Evaluation. *Yuan, J.*, +, *TNS July 2019 1165-1168*

Real Time Conference 2018 Overview. *Abbott, D.*, *TNS July 2019 981*

Real-Time Data Compression for Data Acquisition Systems Applied to the ITER Radial Neutron Camera. *Santos, B.*, +, *TNS July 2019 1324-1329*

The DAQ for the Single-Phase DUNE Prototype at CERN. *Sipos, R.*, *TNS July 2019 1210-1216*

The Design and Performance of the Real-Time Software Architecture for the ITER Radial Neutron Camera. *Cruz, N.*, +, *TNS July 2019 1310-1317*

The Implementation of Data Acquisition System for EAST Technical Diagnostic System. *Chen, Y., +, TNS July 2019 1304-1309*

The LHCb DAQ Upgrade for LHC Run3. *Colombo, T., +, TNS July 2019 982-985*

The MicroTCA Fast Control Board for Generic Control and Data Acquisition Applications in HEP Experiments. *Zhang, J., +, TNS July 2019 1169-1173*

The Readout Electronics Research Design and Development for CEPC Scintillators Electromagnetic Calorimeter Prototype. *Zhao, S., +, TNS July 2019 1107-1114*

Upgrade of the Data Acquisition and Control System of Microwave Reflectometry on the Experimental Advanced Superconducting Tokamak. *Wen, F., +, TNS July 2019 1340-1345*

VME Readout at and Below the Conversion Time Limit. *Munch, M., +, TNS Feb. 2019 575-584*

Data analysis

Advances in Analysis of Microcalorimeter Gamma-Ray Spectra. *Becker, D.T., +, TNS Dec. 2019 2355-2363*

Data communication

Real Time Conference 2018 Overview. *Abbott, D., TNS July 2019 981*

Data compression

Real-Time Data Compression for Data Acquisition Systems Applied to the ITER Radial Neutron Camera. *Santos, B., +, TNS July 2019 1324-1329*

Study on the Real-Time Lossless Data Compression Method Used in the Readout System for Micropattern Gas Detector. *Shen, Z., +, TNS Aug. 2019 2017-2021*

The Design and Performance of the Real-Time Software Architecture for the ITER Radial Neutron Camera. *Cruz, N., +, TNS July 2019 1310-1317*

Data flow analysis

Online Error Detection Through Trace Infrastructure in ARM Microprocessors. *Pena-Fernandez, M., +, TNS July 2019 1457-1464*

Data handling

The DAQ for the Single-Phase DUNE Prototype at CERN. *Sipos, R., TNS July 2019 1210-1216*

Deep level transient spectroscopy

Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. *Yang, J., +, TNS Sept. 2019 2042-2047*

Deep levels

Influence of Poly-AlN Passivation on the Performance Improvement of 3-MeV Proton-Irradiated AlGaIn/GaN MIS-HEMTs. *Zhang, D., +, TNS Oct. 2019 2215-2219*

Investigation of Deep Levels in CdZnTeSe Crystal and Their Effect on the Internal Electric Field of CdZnTeSe Gamma-Ray Detector. *Rejhon, M., +, TNS Aug. 2019 1952-1958*

Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. *Yang, J., +, TNS Sept. 2019 2042-2047*

Significant Degradation of AlGaIn/GaN High-Electron Mobility Transistors With Fast and Thermal Neutron Irradiation. *Lv, L., +, TNS June 2019 886-891*

Defect states

Toward the Development of an InSb-Based Neutron-Resistant Hall Sensor. *Jankowski, J., +, TNS June 2019 926-931*

Degradation

Outstanding Reliability of Heavy-Ion-Irradiated AlInN/GaN on Silicon HFETs. *Vega, N.A., +, TNS Dec. 2019 2417-2421*

Delay lines

A 3.0-ps rms Precision 277-MSamples/s Throughput Time-to-Digital Converter Using Multi-Edge Encoding Scheme in a Kintex-7 FPGA. *Wang, Y., +, TNS Oct. 2019 2275-2281*

Delta-sigma modulation

A Study of $\Sigma\Delta$ -CDS Algorithm for X-Ray CCD Applications. *Lu, B., +, TNS Feb. 2019 597-608*

Demodulation

A Study of $\Sigma\Delta$ -CDS Algorithm for X-Ray CCD Applications. *Lu, B., +, TNS Feb. 2019 597-608*

Density functional theory

Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS₂-Interlayer-MoS₂ Tunneling Junctions. *Wang, P., +, TNS Jan. 2019 420-427*

Total-Ionizing-Dose Response of MoS₂ Transistors With ZrO₂ and h-BN Gate Dielectrics. *Wang, P., +, TNS July 2019 1584-1591*

Design for testability

Worst Case Test Vectors for Sequential Circuits in Flash-Based FPGAs Exposed to Total Dose. *Abdelwahab, M.S., +, TNS July 2019 1642-1650*

Detectors

A Reconstruction Method Through Projection Data Conversion Under the Displaced Detector Scanning for Industrial Cone-Beam CT. *Lin, Q., +, TNS Dec. 2019 2364-2378*

Accelerated X-Ray Diffraction (Tensor) Tomography Simulation Using OptiX GPU Ray-Tracing Engine. *Ulseth, J., +, TNS Dec. 2019 2347-2354*

Adaptive Unscented Kalman Filtering for Reactivity Estimation in Nuclear Power Plants. *Mishra, A.K., +, TNS Dec. 2019 2388-2397*

Advances in Analysis of Microcalorimeter Gamma-Ray Spectra. *Becker, D.T., +, TNS Dec. 2019 2355-2363*

Development and Performance of a Multipurpose System for the Environmental Radiation Survey Based on a LaBr₃(Ce) Detector. *Ji, Y., +, TNS Dec. 2019 2422-2429*

Investigation of the Relation of Decay Time Differences and α - β Ratios for Newly Developed Scintillators. *Yamamoto, S., +, TNS Nov. 2019 2324-2328*

Recent Results From Beam Tests of the ALPIDE Pixel Chip for the Upgrade of the ALICE Inner Tracker. *Kushpil, S., +, TNS Nov. 2019 2319-2323*

Significant Enhancement in Light Output of Photonic-Crystal-Based YAG:Ce Scintillator for Soft X-Ray Detectors. *Yu, H., +, TNS Dec. 2019 2435-2439*

Structured Array for Designing High-Speed Multichannel ICs for Nuclear Electronics. *Dvornikov, O., +, TNS Nov. 2019 2305-2311*

Deuterium

Current Gain Degradation Model of Displacement Damage for Drift BJTs. *Li, L., +, TNS April 2019 716-723*

Performance Comparison Between SiC and Si Neutron Detectors in Deuterium-Tritium Fusion Neutron Irradiation. *Liu, L., +, TNS April 2019 737-741*

Dielectric materials

Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS₂-Interlayer-MoS₂ Tunneling Junctions. *Wang, P., +, TNS Jan. 2019 420-427*

Total-Ionizing-Dose Response of MoS₂ Transistors With ZrO₂ and h-BN Gate Dielectrics. *Wang, P., +, TNS July 2019 1584-1591*

Differential amplifiers

A New Analog Integrator for Magnetic Diagnostics on EAST. *Wang, Y., +, TNS July 2019 1335-1339*

Differential phase shift keying

Active Phase Stabilization for the Interferometer With 128 Actively Selectable Paths. *Xu, Y., +, TNS July 2019 1076-1080*

Digital control

A Control System of New Magnet Power Converter for J-PARC Main Ring Upgrade. *Shimogawa, T., +, TNS July 2019 1236-1241*

Digital signal processing chips

Real-Time FPGA-Based Digital Signal Processing and Correction for a Small Animal PET. *Lu, J., +, TNS July 2019 1287-1295*

Digital-analog conversion

Active Phase Stabilization for the Interferometer With 128 Actively Selectable Paths. *Xu, Y., +, TNS July 2019 1076-1080*

Distributed control

Distributed Parameter Control Method for Axial Neutron Flux in Fast Nuclear Reactor. *Yang, M., TNS June 2019 899-910*

Distributed parameter systems

Distributed Parameter Control Method for Axial Neutron Flux in Fast Nuclear Reactor. *Yang, M., TNS June 2019 899-910*

Distributed sensors

Distributed Optical Fiber Sensor Allowing Temperature and Strain Discrimination in Radiation Environments. *Sabatier, C.*, +, *TNS July 2019 1651-1656*

Doping

Development of Yttrium-Doped BaF₂ Crystals for Future HEP Experiments. *Hu, C.*, +, *TNS July 2019 1854-1860*

Dopant-Type and Concentration Dependence of Total-Ionizing-Dose Response in Piezoresistive Micromachined Cantilevers. *Arutt, C.N.*, +, *TNS Jan. 2019 397-404*

How Excitation Conditions Alter the Afterglow Characteristics of CsI:Tl,Sm Microcolumnar Films. *Miller, S.R.*, +, *TNS Oct. 2019 2229-2232*

Single-Event Effects in SiC Double-Trench MOSFETs. *Zhou, X.*, +, *TNS Nov. 2019 2312-2318*

Doping profiles

Current Gain Degradation Model of Displacement Damage for Drift BJTs. *Li, L.*, +, *TNS April 2019 716-723*

Dosimeters

A Low-Power, Real-Time Displacement Damage Dosimeter. *Warner, J.H.*, +, *TNS Jan. 2019 290-298*

A New Floating-gate Radiation Sensor and Readout Circuit in Standard Single-Poly 130-nm CMOS Technology. *Zhang, C.*, +, *TNS July 2019 1906-1915*

Gamma Dose Rate Measurement Using RadFET. *Kulhar, M.*, +, *TNS Oct. 2019 2220-2228*

Investigation on Passive and Autonomous Mode Operation of Floating Gate Dosimeters. *Brucoli, M.*, +, *TNS July 2019 1620-1627*

On the Instantaneous Dose Rate and Angular Dependence of Monolithic Silicon Array Detectors. *Biasi, G.*, +, *TNS Jan. 2019 519-527*

SENSROC12: A Four-Channel Binary-Output Front-End Readout ASIC for Si-PIN-Based Personal Dosimeters. *Duan, Y.*, +, *TNS Aug. 2019 1976-1983*

SOI Thin Microdosimeter Detectors for Low-Energy Ions and Radiation Damage Studies. *James, B.*, +, *TNS Jan. 2019 320-326*

SRAM Dosimeter for Characterizing the TRIUMF Proton and Neutron Beams. *Blackmore, E.*, +, *TNS Jan. 2019 276-281*

X-Rays, γ -Rays, and Proton Beam Monitoring With Multimode Nitrogen-Doped Optical Fiber. *Girard, S.*, +, *TNS Jan. 2019 306-311*

Dosimetry

Dosimetry Mapping of Mixed-Field Radiation Environment Through Combined Distributed Optical Fiber Sensing and FLUKA Simulation. *Di Francesca, D.*, +, *TNS Jan. 2019 299-305*

Gamma Dose Rate Measurement Using RadFET. *Kulhar, M.*, +, *TNS Oct. 2019 2220-2228*

Impact of Nuclear Data Uncertainty in the Modeling of Neutron-Induced Recoil Atom Energy Distributions in Silicon. *Griffin, P.J.*, +, *TNS July 2019 1719-1729*

Ionization Chambers to Determine Neutron and Gamma-Ray Kerma in a Research Reactor. *Radtke, J.*, +, *TNS Oct. 2019 2160-2169*

Ionizing Radiation Effects Spectroscopy for Analysis of Total-Ionizing Dose Degradation in RF Circuits. *Patel, B.*, +, *TNS Jan. 2019 61-68*

Microdosimetric Spectra Measurements on a Clinical Carbon Beam at Nominal Therapeutic Fluence Rate With Silicon Cylindrical Microdosimeters. *Prieto-Pena, J.*, +, *TNS July 2019 1840-1847*

On the Instantaneous Dose Rate and Angular Dependence of Monolithic Silicon Array Detectors. *Biasi, G.*, +, *TNS Jan. 2019 519-527*

Optimization Design of Radiation Vault in Jupiter Orbiting Mission. *Wang, J.*, +, *TNS Oct. 2019 2179-2187*

Orbit-Like Proton Radiation Sensitivity of CdTe Detectors: Evaluation of Mobility-Lifetime Products and Spectroscopic Properties. *Pascoa, M.P.*, +, *TNS Sept. 2019 2063-2071*

SOI Thin Microdosimeter Detectors for Low-Energy Ions and Radiation Damage Studies. *James, B.*, +, *TNS Jan. 2019 320-326*

Total Dose Testing Methodology for Bipolar Circuits Operating in the Jovian Radiation Environment. *Adell, P.R.*, +, *TNS Jan. 2019 163-169*

Uncertainty Characterization of Silicon Damage Metrics. *Griffin, P.J.*, *TNS Jan. 2019 327-336*

Update and New Features of NTHU Flight Dose Calculator: A Tool for Estimating Aviation Route Doses and Cumulative Spectra of Cosmic Rays in Atmosphere. *Yang, Z.*, +, *TNS Aug. 2019 1931-1941*

Vertical Au/ZnO Schottky Barrier Diode Based on High-Resistivity ZnO Film for X-Ray Dose Measurement. *Zhou, L.*, +, *TNS July 2019 1916-1920*

X-Rays, γ -Rays, and Proton Beam Monitoring With Multimode Nitrogen-Doped Optical Fiber. *Girard, S.*, +, *TNS Jan. 2019 306-311*

Double beta decay

μ TCA DAQ System and Parallel Reading in CANDLES Experiment. *Khair, B.T.*, +, *TNS July 2019 1174-1181*

Development of the Front-End Electronics for PandaX-III Prototype TPC. *Zhu, D.*, +, *TNS July 2019 1123-1129*

Driver circuits

Design of a Nonvacuum-Cooling Compact CCD Camera for Scientific Detection. *Feng, Y.*, +, *TNS Oct. 2019 2286-2292*

LOC1d65, a Dual-Channel VCSEL Driver ASIC for Detector Front-End Readout. *Zhou, W.*, +, *TNS July 2019 1115-1122*

PETAL: A Multichannel Differential ADC Driver for High-Speed CMOS Image Sensors. *Grace, C.R.*, +, *TNS June 2019 955-959*

Drones

Development and Performance of a Multipurpose System for the Environmental Radiation Survey Based on a LaBr₃(Ce) Detector. *Ji, Y.*, +, *TNS Dec. 2019 2422-2429*

E**Elastic constants**

Dopant-Type and Concentration Dependence of Total-Ionizing-Dose Response in Piezoresistive Micromachined Cantilevers. *Arutt, C.N.*, +, *TNS Jan. 2019 397-404*

Elasticity

Physical Mechanisms of Proton-Induced Single-Event Upset in Integrated Memory Devices. *Caron, P.*, +, *TNS July 2019 1404-1409*

Electric field effects

Radiation-Induced Leakage Current and Electric Field Enhancement in CMOS Image Sensor Sense Node Floating Diffusions. *Le Roch, A.*, +, *TNS March 2019 616-624*

Electric fields

Single-Event Effects in SiC Double-Trench MOSFETs. *Zhou, X.*, +, *TNS Nov. 2019 2312-2318*

Electric potential

Comment on "Radial Dependence of Induced Current Density and Small Pixel Effect in Parallel-Plate Detectors". *Hwang, C.*, +, *TNS Sept. 2019 2153-2155*

Electric properties

Neutron Irradiation Effects on the Electrical Properties of Previously Electrically Stressed AlInN/GaN HEMTs. *Petitdidier, S.*, +, *TNS May 2019 810-819*

Electric sensing devices

Methodology for Identifying Radiation Effects in Robotic Systems With Mechanical and Control Performance Variations. *Howard, J.T.*, +, *TNS Jan. 2019 184-189*

Toward the Development of an InSb-Based Neutron-Resistant Hall Sensor. *Jankowski, J.*, +, *TNS June 2019 926-931*

Electrical conductivity

Effect of Proton Radiation on Ultrawide Bandgap AlN Schottky Barrier Diodes. *Montes, J.*, +, *TNS Jan. 2019 91-96*

Electrical resistivity

Depletion Region in Cr/CdTe/Au Schottky Diode X- and γ -Ray Detectors. *Sklyarchuk, V.M.*, +, *TNS Sept. 2019 2140-2144*

Training a Neural Network on Analog TaO_x ReRAM Devices Irradiated With Heavy Ions: Effects on Classification Accuracy Demonstrated With Cross-Sim. *Jacobs-Gedrim, R.B.*, +, *TNS Jan. 2019 54-60*

Electroforming

Heavy Ion Radiation Effects on Hafnium Oxide-Based Resistive Random Access Memory. *Petzold, S.*, +, *TNS July 2019 1715-1718*

Electromagnetic pulse

Simulation of SGEMP Using Particle-In-Cell Method Based on Conformal Technique. *Chen, J.*, +, *TNS May 2019 820-826*

Electron accelerators

High-Speed RF Switch Electronics for Picking Up of Electron–Positron Beam Bunches. *Yan, L.*, +, *TNS July 2019 1081-1087*

Electron beam effects

Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Polyimide. *Pan, S.*, +, *TNS Feb. 2019 549-556*

Mechanisms of Electron-Induced Single-Event Latchup. *Tali, M.*, +, *TNS Jan. 2019 437-443*

Monte Carlo Simulation of Displacement Damage in Graphene. *Liao, W.*, +, *TNS July 2019 1730-1737*

Electron beams

High-Speed RF Switch Electronics for Picking Up of Electron–Positron Beam Bunches. *Yan, L.*, +, *TNS July 2019 1081-1087*

Electron capture

Software-Defined Radio Readout System for the ECHO Experiment. *Sander, O.*, +, *TNS July 2019 1204-1209*

Electron density

Toward the Development of an InSb-Based Neutron-Resistant Hall Sensor. *Jankowski, J.*, +, *TNS June 2019 926-931*

Electron mobility

The Effects of Temperature on the Single-Event Transient Response of a High-Voltage (>30 V) Complementary SiGe-on-SOI Technology. *Omprakash, A.P.*, +, *TNS Jan. 2019 389-396*

Toward the Development of an InSb-Based Neutron-Resistant Hall Sensor. *Jankowski, J.*, +, *TNS June 2019 926-931*

Electron multiplier detectors

Readout Electronics for CEPC Semidigital Hadron Calorimeter Preprototype. *Wang, Y.*, +, *TNS July 2019 1064-1069*

Electron traps

Comparative Study of Cryogenic Versus Room-Temperature Proton Irradiation of N-Channel CCDs and Subsequent Annealing. *Prod'homme, T.*, +, *TNS Jan. 2019 134-139*

Effect of Proton Radiation on Ultrawide Bandgap AlN Schottky Barrier Diodes. *Montes, J.*, +, *TNS Jan. 2019 91-96*

Improvement of the Time Resolution of Radiation Detectors Based on Gd₃Al₂Ga₃O₁₂ Scintillators With SiPM Readout. *Tamulaitis, G.*, +, *TNS July 2019 1879-1888*

Investigation of Single-Event Transients in AlGaIn/GaN MIS-Gate HEMTs Using a Focused X-Ray Beam. *Khachatryan, A.*, +, *TNS Jan. 2019 368-375*

Neutron Irradiation Effects on the Electrical Properties of Previously Electrically Stressed AlInN/GaN HEMTs. *Petitdidier, S.*, +, *TNS May 2019 810-819*

Total-Ionizing-Dose Response of MoS₂ Transistors With ZrO₂ and h-BN Gate Dielectrics. *Wang, P.*, +, *TNS July 2019 1584-1591*

Electron-hole recombination

A Multifield and Frequency Electrically Detected Magnetic Resonance Study of Atomic-Scale Defects in Gamma Irradiated Modern MOS Integrated Circuitry. *Myers, K.J.*, +, *TNS Jan. 2019 405-412*

III–V Laser Power Converters With Vertically Stacked Subcells Demonstrating Superior Radiation Resilience. *York, M.C.A.*, +, *TNS June 2019 938-945*

Synergistic Effects of TID and ATREE in Vertical NPN Bipolar Transistor. *Li, R.*, +, *TNS July 2019 1566-1573*

Understanding the Average Electron–Hole Pair-Creation Energy in Silicon and Germanium Based on Full-Band Monte Carlo Simulations. *Fang, J.*, +, *TNS Jan. 2019 444-451*

Electronic data interchange

VME Readout at and Below the Conversion Time Limit. *Munch, M.*, +, *TNS Feb. 2019 575-584*

Electronic design automation

A Bias-Dependent Single-Event-Enabled Compact Model for Bulk FinFET Technologies. *Kauppila, J.S.*, +, *TNS March 2019 635-642*

Electrostatic discharge

Best Practices for Using Electrostatic Discharge Protection Techniques for Single-Event Transient Mitigation. *Cho, M.*, +, *TNS Jan. 2019 240-247*

Elemental semiconductors

Comparison of the Total Dose Responses of Fully Depleted SOI nMOSFETs With Different Geometries for the Worst Case Bias Conditions. *Zheng, Z.*, +, *TNS Oct. 2019 2207-2214*

Comparison of Total-Ionizing-Dose Effects in Bulk and SOI FinFETs at 90 and 295 K. *Haefner, T.D.*, +, *TNS June 2019 911-917*

Gamma Radiation Induced Effects on the Performance of Piezoresistive Pressure Sensors Fabricated Using Different Technologies. *Belwanshi, V.*, +, *TNS Sept. 2019 2055-2062*

Gate Bias and Length Dependences of Total Ionizing Dose Effects in InGaAs FinFETs on Bulk Si. *Zhao, S.E.*, +, *TNS July 2019 1599-1605*

Improvement of the Time Resolution of Radiation Detectors Based on Gd₃Al₂Ga₃O₁₂ Scintillators With SiPM Readout. *Tamulaitis, G.*, +, *TNS July 2019 1879-1888*

Interface Passivation Strategy for Ge pMOSFET From a TID Perspective. *Ren, Z.*, +, *TNS July 2019 1592-1598*

Laser-Induced Single-Event Transients in Black Phosphorus MOSFETs. *Liang, C.*, +, *TNS Jan. 2019 384-388*

Operational Conditions of Silicon Pixel Arrays for X-Ray Spectroscopy. *Giacomini, G.*, +, *TNS Oct. 2019 2245-2251*

Performance Comparison Between SiC and Si Neutron Detectors in Deuterium–Tritium Fusion Neutron Irradiation. *Liu, L.*, +, *TNS April 2019 737-741*

Physical Analysis of Damage Sites Introduced by SEGR in Silicon Vertical Power MOSFETs and Implications for Postirradiation Gate-Stress Test. *Kuboyama, S.*, +, *TNS July 2019 1710-1714*

Pulsed-Laser Induced Single-Event Transients in InGaAs FinFETs on Bulk Silicon Substrates. *Gong, H.*, +, *TNS Jan. 2019 376-383*

Qualification and Integration Aspects of the DSSC Mega-Pixel X-Ray Imager. *Hansen, K.*, +, *TNS Aug. 2019 1966-1975*

Synergistic Effects of TID and ATREE in Vertical NPN Bipolar Transistor. *Li, R.*, +, *TNS July 2019 1566-1573*

The Effect of Gamma Radiation Exposure on Active Silicon Photonic Device Performance Metrics. *Hoffman, G.B.*, +, *TNS May 2019 801-809*

Total Ionizing Dose Effects in 70-GHz Bandwidth Photodiodes in a SiGe Integrated Photonics Platform. *Goley, P.S.*, +, *TNS Jan. 2019 125-133*

Understanding the Average Electron–Hole Pair-Creation Energy in Silicon and Germanium Based on Full-Band Monte Carlo Simulations. *Fang, J.*, +, *TNS Jan. 2019 444-451*

Elliptic design

Electromagnetic Simulations of Mechanical Imperfections for Accelerator Cavities. *Karatay, A.*, +, *TNS Nov. 2019 2295-2304*

Embedded systems

Nonintrusive Automatic Compiler-Guided Reliability Improvement of Embedded Applications Under Proton Irradiation. *Serrano-Cases, A.*, +, *TNS July 2019 1500-1509*

Emission tomography

Effect of Gamma-Ray Energy on Image Quality in Passive Gamma Emission Tomography of Spent Nuclear Fuel. *Belanger-Champagne, C.*, +, *TNS Jan. 2019 487-496*

Encoding

A 3.0-ps rms Precision 277-MSamples/s Throughput Time-to-Digital Converter Using Multi-Edge Encoding Scheme in a Kintex-7 FPGA. *Wang, Y.*, +, *TNS Oct. 2019 2275-2281*

Methodology for Identifying Radiation Effects in Robotic Systems With Mechanical and Control Performance Variations. *Howard, J.T.*, +, *TNS Jan. 2019 184-189*

Energy conservation

A Highly Reliable and Energy-Efficient Triple-Node-Upset-Tolerant Latch Design. *Kumar, C.I.*, +, *TNS Oct. 2019 2196-2206*

Energy gap

Anomalous Te Inclusion Size and Distribution in CdZnTeSe. *Hwang, S.*, +, *TNS Nov. 2019 2329-2332*

Understanding the Average Electron–Hole Pair-Creation Energy in Silicon and Germanium Based on Full-Band Monte Carlo Simulations. *Fang, J.*, +, *TNS Jan. 2019 444-451*

Energy loss of particles

Impact of Nuclear Data Uncertainty in the Modeling of Neutron-Induced Recoil Atom Energy Distributions in Silicon. *Griffin, P.J.*, +, *TNS July 2019 1719-1729*

Error correction codes

Neutron-Induced Multiple-Cell Upsets in 20-nm Bulk SRAM: Angular Sensitivity and Impact of Multiwell Potential Perturbation. *Kato, T.*, +, *TNS July 2019 1381-1389*

Error detection

Online Error Detection Through Trace Infrastructure in ARM Microprocessors. *Pena-Fernandez, M.*, +, *TNS July 2019 1457-1464*

Error statistics

Atmospheric Neutron Soft Errors in 3-D NAND Flash Memories. *Bagatin, M.*, +, *TNS July 2019 1361-1367*

Estimation

Adaptive Unscented Kalman Filtering for Reactivity Estimation in Nuclear Power Plants. *Mishra, A.K.*, +, *TNS Dec. 2019 2388-2397*

Estimation theory

Reactivity and Delayed Neutron Precursors' Concentration Estimation Based on Recursive Nonlinear Dynamic Data Reconciliation Technique. *Bhatt, T.U.*, +, *TNS Feb. 2019 541-548*

Etching

Depletion Region in Cr/CdTe/Au Schottky Diode X- and γ -Ray Detectors. *Sklyarchuk, V.M.*, +, *TNS Sept. 2019 2140-2144*

Expectation-maximization algorithms

Development of the Hemispherical Rotational Modulation Collimator Imaging System. *Kim, H.S.*, +, *TNS Sept. 2019 2114-2122*

Gamma-Ray Point-Source Localization and Sparse Image Reconstruction Using Poisson Likelihood. *Hellfeld, D.*, +, *TNS Sept. 2019 2088-2099*

Real-Time Free-Moving Active Coded Mask 3D Gamma-Ray Imaging. *Hellfeld, D.*, +, *TNS Oct. 2019 2252-2260*

F**Failure analysis**

Atmospheric Neutron Soft Errors in 3-D NAND Flash Memories. *Bagatin, M.*, +, *TNS July 2019 1361-1367*

Heavy Ion Transport Modeling for Single-Event Burnout in SiC-Based Power Devices. *McPherson, J.A.*, +, *TNS Jan. 2019 474-481*

Predicting Cosmic Ray-Induced Failures in Silicon Carbide Power Devices. *Akturk, A.*, +, *TNS July 2019 1828-1832*

Radiation Response of AlGaIn-Channel HEMTs. *Martinez, M.J.*, +, *TNS Jan. 2019 344-351*

Reliability Calculation With Respect to Functional Failures Induced by Radiation in TMR Arm Cortex-M0 Soft-Core Embedded Into SRAM-Based FPGA. *Benites, L.A.C.*, +, *TNS July 2019 1433-1440*

Fast Fourier transforms

Few-view computed tomography image reconstruction using mean curvature model with curvature smoothing and surface fitting. *Zheng, Z.*, +, *TNS Feb. 2019 585-596*

Fault diagnosis

Fault Detection and Identification for Sensor Channels in Steam Generator Level Control Loops. *Cho, S.*, +, *TNS May 2019 771-781*

Online Fault Detection and Isolation in Advanced Heavy Water Reactor Using Multiscale Principal Component Analysis. *Yellapu, V.S.*, +, *TNS July 2019 1790-1803*

Selective Fault Tolerance for Register Files of Graphics Processing Units. *Goncalves, M.*, +, *TNS July 2019 1449-1456*

Sensors Incipient Fault Detection and Isolation Using Kalman Filter and Kullback-Leibler Divergence. *Gautam, S.*, +, *TNS May 2019 782-794*

Fault tolerant computing

Microcontroller Compiler-Assisted Software Fault Tolerance. *Bohman, M.*, +, *TNS Jan. 2019 223-232*

Selective Fault Tolerance for Register Files of Graphics Processing Units. *Goncalves, M.*, +, *TNS July 2019 1449-1456*

Feedback

Fault Detection and Identification for Sensor Channels in Steam Generator Level Control Loops. *Cho, S.*, +, *TNS May 2019 771-781*

Online Betatron Tune Feedback in the HLS-II Storage Ring. *Wang, S.*, +, *TNS April 2019 696-701*

Feedback amplifiers

Active Feedback With Leakage Current Compensation for Charge Sensitive Amplifier Used in Hybrid Pixel Detector. *Kmon, P.*, +, *TNS March 2019 664-673*

Feedback control

Optimal State Feedback Controller for a Nuclear Reactor. *Vaswani, P.D.*, +, *TNS Dec. 2019 2379-2387*

Fermi level

Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. *Yang, J.*, +, *TNS Sept. 2019 2042-2047*

Ferromagnetic materials

Effects of Gamma Irradiation on Magnetic Properties of Double-Interface CoFeB/MgO Multilayers. *Wang, B.*, +, *TNS Jan. 2019 77-81*

Fiber optic sensors

Distributed Optical Fiber Sensor Allowing Temperature and Strain Discrimination in Radiation Environments. *Sabatier, C.*, +, *TNS July 2019 1651-1656*

Radiation Resistant Single-Mode Fiber With Different Coatings for Sensing in High Dose Environments. *Melin, G.*, +, *TNS July 2019 1657-1662*

Radiation-Induced Effects on Fiber Bragg Gratings Inscribed in Highly Birefringent Photonic Crystal Fiber. *Morana, A.*, +, *TNS Jan. 2019 120-124*

Fiber buses

VME Readout at and Below the Conversion Time Limit. *Munch, M.*, +, *TNS Feb. 2019 575-584*

Field effect transistors

A New Floating-gate Radiation Sensor and Readout Circuit in Standard Single-Poly 130-nm CMOS Technology. *Zhang, C.*, +, *TNS July 2019 1906-1915*

Analysis of Nanowire Field-Effect Transistors SET Response: Geometrical Considerations. *Gaillardin, M.*, +, *TNS July 2019 1410-1417*

Total-Ionizing-Dose Response of MoS₂ Transistors With ZrO₂ and h-BN Gate Dielectrics. *Wang, P.*, +, *TNS July 2019 1584-1591*

Field programmable gate arrays

A 3.0-ps rms Precision 277-MSamples/s Throughput Time-to-Digital Converter Using Multi-Edge Encoding Scheme in a Kintex-7 FPGA. *Wang, Y.*, +, *TNS Oct. 2019 2275-2281*

A High-Precision 2.5-ps RMS Time Synchronization for Multiple High-Speed Transceivers in FPGA. *Xie, H.*, +, *TNS July 2019 1070-1075*

A New Interface Board for the Level-1 Muon Barrel Trigger Upgrade of the ATLAS Experiment. *Izzo, V.*, +, *TNS July 2019 1028-1035*

A Scanning Test System of p/sFEB Based on FPGA XADC for the ATLAS Phase-I sTGC Upgrade. *Wang, X.*, +, *TNS July 2019 1249-1253*

Active Phase Stabilization for the Interferometer With 128 Actively Selectable Paths. *Xu, Y.*, +, *TNS July 2019 1076-1080*

Assessment of a Hardware-Implemented Machine Learning Technique Under Neutron Irradiation. *Trindade, M.G.*, +, *TNS July 2019 1441-1448*

Back-End Electronics Based on an Asymmetric Network for Low Background and Medium-Scale Physics Experiments. *Calvet, D.*, *TNS July 2019 998-1006*

Cavity Simulator for European Spallation Source. *Grzegorzolka, M.*, +, *TNS July 2019 1254-1261*

Characterization and Mitigation of Single-Event Transients in Xilinx 45-nm SRAM-Based FPGA. *Keren, E.*, +, *TNS June 2019 946-954*

Development and Evaluation of a Pixel Detector System for Pencil Beam Scanning Proton Therapy. *Eichin, M.*, +, *TNS July 2019 1273-1279*

Development of a Time-of-Flight Electronics System for Neutron Beam Profiling at CSNS-WNS. *Chen, H.*, +, *TNS Aug. 2019 2005-2010*

Development of Next-Generation LLRF Control System for J-PARC Rapid Cycling Synchrotron. *Tamura, F.*, +, *TNS July 2019 1242-1248*

Electronics of Time-of-Flight Measurement for Back-n at CSNS. *Yu, T.*, +, *TNS July 2019 1095-1099*

Evaluating the Impact of Repetition, Redundancy, Scrubbing, and Partitioning on 28-nm FPGA Reliability Through Neutron Testing. *Kibar, O.O.*, +, *TNS Jan. 2019 248-254*

FELIX-Based Readout of the Single-Phase ProtoDUNE Detector. *Borga, A.*, +, *TNS July 2019 993-997*

- FELIX: the New Detector Interface for the ATLAS Experiment. *Wu, W., TNS July 2019 986-992*
- Flit-Level InfiniBand Network Simulations of the DAQ System of the LHCb Experiment for Run-3. *Colombo, T., +, TNS July 2019 1159-1164*
- FPGA Implementation of RDMA-Based Data Acquisition System Over 100-Gb Ethernet. *Mansour, W., +, TNS July 2019 1138-1143*
- Framework for High-Performance Video Acquisition and Processing in MTCA.4 Form Factor. *Mielczarek, A., +, TNS July 2019 1144-1150*
- General Purpose Readout Board π LUP: Overview and Results. *Giangiacomi, N., +, TNS July 2019 1021-1027*
- Nanoseconds Timing System Based on IEEE 1588 FPGA Implementation. *Pedretti, D., +, TNS July 2019 1151-1158*
- On the Susceptibility of SRAM-Based FPGA Routing Network to Delay Changes Induced by Ionizing Radiation. *Darvishi, M., +, TNS March 2019 643-654*
- OpenCL Implementation of an Adaptive Disruption Predictor Based on a Probabilistic Venn Classifier. *Carpino, A., +, TNS July 2019 1007-1013*
- Real-Time Betatron Tune Correction With the Precise Measurement of Magnet Current. *Kurimoto, Y., +, TNS July 2019 1036-1041*
- Real-Time Data Compression for Data Acquisition Systems Applied to the ITER Radial Neutron Camera. *Santos, B., +, TNS July 2019 1324-1329*
- Real-Time FPGA-Based Digital Signal Processing and Correction for a Small Animal PET. *Lu, J., +, TNS July 2019 1287-1295*
- Reliability Calculation With Respect to Functional Failures Induced by Radiation in TMR Arm Cortex-M0 Soft-Core Embedded Into SRAM-Based FPGA. *Benites, L.A.C., +, TNS July 2019 1433-1440*
- Selective Hardening for Neural Networks in FPGAs. *Libano, F., +, TNS Jan. 2019 216-222*
- Single-Event Effects Induced on Atom Switch-based Field-Programmable Gate Array. *Takeuchi, K., +, TNS July 2019 1355-1360*
- Strategies for Removing Common Mode Failures From TMR Designs Deployed on SRAM FPGAs. *Cannon, M.J., +, TNS Jan. 2019 207-215*
- Study on the Real-Time Lossless Data Compression Method Used in the Readout System for Micropattern Gas Detector. *Shen, Z., +, TNS Aug. 2019 2017-2021*
- The Design and Performance of the Real-Time Software Architecture for the ITER Radial Neutron Camera. *Cruz, N., +, TNS July 2019 1310-1317*
- The Effect of 1–10-MeV Neutrons on the JESD89 Test Standard. *Quinn, H., +, TNS Jan. 2019 140-147*
- The MicroTCA Fast Control Board for Generic Control and Data Acquisition Applications in HEP Experiments. *Zhang, J., +, TNS July 2019 1169-1173*
- TID Evaluation System With On-Chip Electron Source and Programmable Sensing Mechanisms on FPGA. *Lentaris, G., +, TNS Jan. 2019 312-319*
- Ultrahigh Energy Heavy Ion Test Beam on Xilinx Kintex-7 SRAM-Based FPGA. *Du, B., +, TNS July 2019 1813-1819*
- Worst Case Test Vectors for Sequential Circuits in Flash-Based FPGAs Exposed to Total Dose. *Abdelwahab, M.S., +, TNS July 2019 1642-1650*
- File organization**
- Framework for High-Performance Video Acquisition and Processing in MTCA.4 Form Factor. *Mielczarek, A., +, TNS July 2019 1144-1150*
- Selective Fault Tolerance for Register Files of Graphics Processing Units. *Goncalves, M., +, TNS July 2019 1449-1456*
- Filtering theory**
- Investigation on Passive and Autonomous Mode Operation of Floating Gate Dosimeters. *Brucoli, M., +, TNS July 2019 1620-1627*
- Real-Time Local Noise Filter in 3-D Visualization of CT Data. *Tan Jerome, N., +, TNS July 2019 1296-1303*
- Finite difference time-domain analysis**
- Simulation of SGEMP Using Particle-In-Cell Method Based on Conformal Technique. *Chen, J., +, TNS May 2019 820-826*
- Finite state machines**
- Nanoseconds Timing System Based on IEEE 1588 FPGA Implementation. *Pedretti, D., +, TNS July 2019 1151-1158*
- Firmware**
- Cavity Simulator for European Spallation Source. *Grzegorzolka, M., +, TNS July 2019 1254-1261*
- Fission products**
- Quantification of Trace-Level Fissile Samples via Short-Lived Delayed Gamma Spectroscopy. *Skutnik, S., +, TNS Sept. 2019 2123-2135*
- Fission reactor core control**
- Distributed Parameter Control Method for Axial Neutron Flux in Fast Nuclear Reactor. *Yang, M., TNS June 2019 899-910*
- Numerical Simulation and Sensitivity Study of the Rhodium Self-Powered Neutron Detector Used in PWR. *Cao, L., +, TNS April 2019 742-751*
- Fission reactor design**
- Distributed Parameter Control Method for Axial Neutron Flux in Fast Nuclear Reactor. *Yang, M., TNS June 2019 899-910*
- Numerical Simulation and Sensitivity Study of the Rhodium Self-Powered Neutron Detector Used in PWR. *Cao, L., +, TNS April 2019 742-751*
- Fission reactor fuel**
- Effect of Gamma-Ray Energy on Image Quality in Passive Gamma Emission Tomography of Spent Nuclear Fuel. *Belanger-Champagne, C., +, TNS Jan. 2019 487-496*
- Numerical Simulation and Sensitivity Study of the Rhodium Self-Powered Neutron Detector Used in PWR. *Cao, L., +, TNS April 2019 742-751*
- Fission reactor fuel reprocessing**
- Monitoring Aqueous Reprocessing Systems for Detection of Facility Misuse. *Coble, J., +, TNS April 2019 729-736*
- Fission reactor instrumentation**
- Numerical Simulation and Sensitivity Study of the Rhodium Self-Powered Neutron Detector Used in PWR. *Cao, L., +, TNS April 2019 742-751*
- Fission reactor kinetics**
- Reactivity and Delayed Neutron Precursors' Concentration Estimation Based on Recursive Nonlinear Dynamic Data Reconciliation Technique. *Bhatt, T.U., +, TNS Feb. 2019 541-548*
- Fission reactors**
- A Frequency Domain Control Perspective on Xenon Resistance for Load Following of Thermal Nuclear Reactors. *Al Rashdan, A., +, TNS Sept. 2019 2034-2041*
- Adaptive Unscented Kalman Filtering for Reactivity Estimation in Nuclear Power Plants. *Mishra, A.K., +, TNS Dec. 2019 2388-2397*
- Optimal State Feedback Controller for a Nuclear Reactor. *Vaswani, P.D., +, TNS Dec. 2019 2379-2387*
- Single-Event Upsets in SRAMs With Scaling Technology Nodes Induced by Terrestrial, Nuclear Reactor, and Monoenergetic Neutrons. *Chen, W., +, TNS June 2019 856-865*
- Fission research reactors**
- Ionization Chambers to Determine Neutron and Gamma-Ray Kerma in a Research Reactor. *Radtke, J., +, TNS Oct. 2019 2160-2169*
- Reactivity and Delayed Neutron Precursors' Concentration Estimation Based on Recursive Nonlinear Dynamic Data Reconciliation Technique. *Bhatt, T.U., +, TNS Feb. 2019 541-548*
- Flash memories**
- Atmospheric Neutron Soft Errors in 3-D NAND Flash Memories. *Bagatin, M., +, TNS July 2019 1361-1367*
- Directional Dependence of Co-60 Irradiation on the Total Dose Response of Flash Memories. *Gadlage, M.J., +, TNS Jan. 2019 148-154*
- Impact of the Elemental Makeup of an IC in Generating Single-Event Upsets From Low-Energy (<10 MeV) Neutrons: A 3-D nand Flash Case Study. *Conway, P.M., +, TNS Jan. 2019 466-473*
- Total Ionizing Dose Effects in 3-D NAND Flash Memories. *Bagatin, M., +, TNS Jan. 2019 48-53*
- Flicker noise**
- Operational Conditions of Silicon Pixel Arrays for X-Ray Spectroscopy. *Giacomini, G., +, TNS Oct. 2019 2245-2251*
- Flip-chip devices**
- Qualification and Integration Aspects of the DSSC Mega-Pixel X-Ray Imager. *Hansen, K., +, TNS Aug. 2019 1966-1975*
- Flip-flops**
- A Highly Reliable and Energy-Efficient Triple-Node-Upset-Tolerant Latch Design. *Kumar, C.I., +, TNS Oct. 2019 2196-2206*
- Analysis of Neutron-Induced Multibit-Upset Clusters in a 14-nm Flip-Flop Array. *Kumar, S., +, TNS June 2019 918-925*

Characterization and Mitigation of Single-Event Transients in Xilinx 45-nm SRAM-Based FPGA. *Keren, E.*, +, *TNS June 2019 946-954*

Compact Modeling of Single-Event Latchup of Integrated CMOS Circuit. *Al Youssef, A.*, +, *TNS July 2019 1510-1515*

Empirical Modeling of FinFET SEU Cross Sections Across Supply Voltage. *Harrington, R.C.*, +, *TNS July 2019 1427-1432*

Radiation-Hardened Structure to Reduce Sensitive Range of a Stacked Structure for FDSOI. *Yamada, K.*, +, *TNS July 2019 1418-1426*

Single-Event Latchup in a CMOS-Based ASIC Using Heavy Ions, Laser Pulses, and Coupled Simulation. *Mauguet, M.*, +, *TNS July 2019 1516-1522*

Using MRED to Screen Multiple-Node Charge-Collection Mitigated SOI Layouts. *Black, J.D.*, +, *TNS Jan. 2019 233-239*

Fluorine

Distributed Optical Fiber Sensor Allowing Temperature and Strain Discrimination in Radiation Environments. *Sabatier, C.*, +, *TNS July 2019 1651-1656*

Focused ion beam technology

Investigation of Single-Event Transients in AlGaIn/GaN MIS-Gate HEMTs Using a Focused X-Ray Beam. *Khachatrian, A.*, +, *TNS Jan. 2019 368-375*

Free electron lasers

Charge Sensitive Amplifier With Offset-Compensated V-to-I Converter for the Mini-SDD-Based DSSC Detector. *Grande, A.*, +, *TNS Oct. 2019 2233-2238*

European XFEL Superconducting Cryomodules Characterization Toward Modules Acceptance and Future LLRF Operation. *Cichalewski, W.*, +, *TNS Sept. 2019 2145-2152*

Signal and Noise Performance of a 110-nm CMOS Technology for Photon Science Applications. *Traversi, G.*, +, *TNS April 2019 752-759*

Frequency control

A Frequency Domain Control Perspective on Xenon Resistance for Load Following of Thermal Nuclear Reactors. *Al Rashdan, A.*, +, *TNS Sept. 2019 2034-2041*

Function generators

Control and Readout Software for Superconducting Quantum Computing. *Guo, C.*, +, *TNS July 2019 1222-1227*

Upgrade of the Data Acquisition and Control System of Microwave Reflectometry on the Experimental Advanced Superconducting Tokamak. *Wen, F.*, +, *TNS July 2019 1340-1345*

Fusion reactor design

FPGA Code for the Data Acquisition and Real-Time Processing Prototype of the ITER Radial Neutron Camera. *Fernandes, A.*, +, *TNS July 2019 1318-1323*

Survey and Test Environment for ITER EPP#12 In-PP Electrical Components. *Sun, X.*, +, *TNS July 2019 1330-1334*

Fusion reactor instrumentation

A General-Purpose Digital Pulse Shape Discrimination Algorithm. *Nakhoshtin, M.*, *TNS May 2019 838-845*

FPGA Code for the Data Acquisition and Real-Time Processing Prototype of the ITER Radial Neutron Camera. *Fernandes, A.*, +, *TNS July 2019 1318-1323*

Real-Time Data Compression for Data Acquisition Systems Applied to the ITER Radial Neutron Camera. *Santos, B.*, +, *TNS July 2019 1324-1329*

Survey and Test Environment for ITER EPP#12 In-PP Electrical Components. *Sun, X.*, +, *TNS July 2019 1330-1334*

The Design and Performance of the Real-Time Software Architecture for the ITER Radial Neutron Camera. *Cruz, N.*, +, *TNS July 2019 1310-1317*

The Trigger-Time-Event System for Wendelstein 7-X: Overview and First Operational Experiences. *Schacht, J.*, +, *TNS June 2019 969-973*

Fusion reactors

Single-Event Upsets in SRAMs With Scaling Technology Nodes Induced by Terrestrial, Nuclear Reactor, and Monoenergetic Neutrons. *Chen, W.*, +, *TNS June 2019 856-865*

G

Gadolinium compounds

Compact and Effective Detector of the Fast Neutrons on a Base of Ce-doped Gd₃Al₂Ga₃O₁₂ Scintillation Crystal. *Korjik, M.*, +, *TNS Jan. 2019 536-540*

Gain measurement

Measuring the Gain of a Microchannel Plate/Phosphor Assembly Using a Convolutional Neural Network. *Jones, M.*, +, *TNS Dec. 2019 2430-2434*

Galactic cosmic rays

Update and New Features of NTHU Flight Dose Calculator: A Tool for Estimating Aviation Route Doses and Cumulative Spectra of Cosmic Rays in Atmosphere. *Yang, Z.*, +, *TNS Aug. 2019 1931-1941*

Gallium arsenide

A Low-Power, Real-Time Displacement Damage Dosimeter. *Warner, J.H.*, +, *TNS Jan. 2019 290-298*

GaAs as a Bright Cryogenic Scintillator for the Detection of Low-Energy Electron Recoils From MeV/c² Dark Matter. *Vasiukov, S.*, +, *TNS Nov. 2019 2333-2337*

Gate Bias and Length Dependences of Total Ionizing Dose Effects in InGaAs FinFETs on Bulk Si. *Zhao, S.E.*, +, *TNS July 2019 1599-1605*

III-V Laser Power Converters With Vertically Stacked Subcells Demonstrating Superior Radiation Resilience. *York, M.C.A.*, +, *TNS June 2019 938-945*

Pulsed-Laser Induced Single-Event Transients in InGaAs FinFETs on Bulk Silicon Substrates. *Gong, H.*, +, *TNS Jan. 2019 376-383*

Radiation Effects on High-Speed InGaAs Photodiodes. *Olantera, L.*, +, *TNS July 2019 1663-1670*

Gallium compounds

Dose-Rate Dependence of the Total-Ionizing-Dose Response of GaN-Based HEMTs. *Jiang, R.*, +, *TNS Jan. 2019 170-176*

Influence of Poly-AlN Passivation on the Performance Improvement of 3-MeV Proton-Irradiated AlGaIn/GaN MIS-HEMTs. *Zhang, D.*, +, *TNS Oct. 2019 2215-2219*

Investigation of Single-Event Transients in AlGaIn/GaN MIS-Gate HEMTs Using a Focused X-Ray Beam. *Khachatrian, A.*, +, *TNS Jan. 2019 368-375*

Neutron Irradiation Effects on the Electrical Properties of Previously Electrically Stressed AlInN/GaN HEMTs. *Petitdidier, S.*, +, *TNS May 2019 810-819*

Significant Degradation of AlGaIn/GaN High-Electron Mobility Transistors With Fast and Thermal Neutron Irradiation. *Lv, L.*, +, *TNS June 2019 886-891*

The Effect of the Gate-Connected Field Plate on Single-Event Transients in AlGaIn/GaN Schottky-Gate HEMTs. *Khachatrian, A.*, +, *TNS July 2019 1682-1687*

Gallium nitride

Outstanding Reliability of Heavy-Ion-Irradiated AlInN/GaN on Silicon HFETs. *Vega, N.A.*, +, *TNS Dec. 2019 2417-2421*

Gamma rays

Advances in Analysis of Microcalorimeter Gamma-Ray Spectra. *Becker, D.T.*, +, *TNS Dec. 2019 2355-2363*

Gamma-ray detection

A Comparison of the Effects of Neutron and Gamma Radiation in Silicon Photomultipliers. *Biro, B.*, +, *TNS July 2019 1833-1839*

A General-Purpose Digital Pulse Shape Discrimination Algorithm. *Nakhoshtin, M.*, *TNS May 2019 838-845*

An Improved Gamma Scanning Assay Method for the 400-L Compacted Radioactive Waste Drum Based on the Segmented Equivalent Ring Source. *Gu, W.*, +, *TNS July 2019 1889-1896*

Anomalous Te Inclusion Size and Distribution in CdZnTeSe. *Hwang, S.*, +, *TNS Nov. 2019 2329-2332*

Codoped Lithium Sodium Iodide With Tl⁺ and Eu²⁺ Activators for Neutron Detector. *Bhattacharya, P.*, +, *TNS Sept. 2019 2136-2139*

Compact and Effective Detector of the Fast Neutrons on a Base of Ce-doped Gd₃Al₂Ga₃O₁₂ Scintillation Crystal. *Korjik, M.*, +, *TNS Jan. 2019 536-540*

Comparison of SiPM and PMT Performance Using a Cs₂LiYCl₆:Ce³⁺ (CLYC) Scintillator With Two Optical Windows. *Recker, M.C.*, +, *TNS Aug. 2019 1959-1965*

- Depletion Region in Cr/CdTe/Au Schottky Diode X- and γ -Ray Detectors. *Sklyarchuk, V.M.*, +, *TNS Sept. 2019 2140-2144*
- Effect of Gamma-Ray Energy on Image Quality in Passive Gamma Emission Tomography of Spent Nuclear Fuel. *Belanger-Champagne, C.*, +, *TNS Jan. 2019 487-496*
- Effects of Defects to the Performance of CdTe Pad Detectors in IBIC Measurements. *Kalliokoski, M.*, +, *TNS May 2019 846-851*
- Gamma-Ray Point-Source Localization and Sparse Image Reconstruction Using Poisson Likelihood. *Hellfeld, D.*, +, *TNS Sept. 2019 2088-2099*
- Improvement of a PET Detector Performance by Setting Reflectors in Parallel With PMT Face. *Inadama, N.*, +, *TNS Jan. 2019 497-505*
- Investigation of Deep Levels in CdZnTeSe Crystal and Their Effect on the Internal Electric Field of CdZnTeSe Gamma-Ray Detector. *Rejhon, M.*, +, *TNS Aug. 2019 1952-1958*
- Ionization Chambers to Determine Neutron and Gamma-Ray Kerma in a Research Reactor. *Radtke, J.*, +, *TNS Oct. 2019 2160-2169*
- LiF/CsI:Tl Scintillator for High-Resolution Neutron Imaging. *Miller, S.R.*, +, *TNS Oct. 2019 2261-2264*
- Non-negative Matrix Factorization of Gamma-Ray Spectra for Background Modeling, Detection, and Source Identification. *Bilton, K.J.*, +, *TNS May 2019 827-837*
- Optimization of Parameters for a CsI(Tl) Scintillator Detector Using GEANT4-Based Monte Carlo Simulation Including Optical Photon Transport. *Mitra, P.*, +, *TNS July 2019 1870-1878*
- Orbit-Like Proton Radiation Sensitivity of CdTe Detectors: Evaluation of Mobility-Lifetime Products and Spectroscopic Properties. *Pascoa, M.P.*, +, *TNS Sept. 2019 2063-2071*
- Preliminary Design of Integrated Digitizer Base for Photomultiplier Tube. *Zhu, J.*, +, *TNS July 2019 1130-1137*
- Quantification of Trace-Level Fissile Samples via Short-Lived Delayed Gamma Spectroscopy. *Skutnik, S.*, +, *TNS Sept. 2019 2123-2135*
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- SENSROC12: A Four-Channel Binary-Output Front-End Readout ASIC for Si-PIN-Based Personal Dosimeters. *Duan, Y.*, +, *TNS Aug. 2019 1976-1983*
- Gamma-ray effects**
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- A Multifield and Frequency Electrically Detected Magnetic Resonance Study of Atomic-Scale Defects in Gamma Irradiated Modern MOS Integrated Circuitry. *Myers, K.J.*, +, *TNS Jan. 2019 405-412*
- Comparison of Radiation Effects in Custom and Commercially Fabricated Resistive Memory Devices. *Holt, J.S.*, +, *TNS Dec. 2019 2398-2407*
- Comparison of the Total Dose Responses of Fully Depleted SOI nMOSFETs With Different Geometries for the Worst Case Bias Conditions. *Zheng, Z.*, +, *TNS Oct. 2019 2207-2214*
- Development of Radiation-Hard Solid-State Amplifiers for Kilogray Environments Using COTS Components. *Ohmori, C.*, +, *TNS Oct. 2019 2188-2195*
- Directional Dependence of Co-60 Irradiation on the Total Dose Response of Flash Memories. *Gadlage, M.J.*, +, *TNS Jan. 2019 148-154*
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- Effects of Gamma Irradiation on Magnetic Properties of Double-Interface CoFeB/MgO Multilayers. *Wang, B.*, +, *TNS Jan. 2019 77-81*
- Gamma Dose Rate Measurement Using RadFET. *Kulhar, M.*, +, *TNS Oct. 2019 2220-2228*
- Optimization Design of Radiation Vault in Jupiter Orbiting Mission. *Wang, J.*, +, *TNS Oct. 2019 2179-2187*
- Temperature-Switching During Irradiation as a Test for ELDRS in Linear Bipolar Devices. *Li, X.*, +, *TNS Jan. 2019 199-206*
- The Effect of Gamma Radiation Exposure on Active Silicon Photonic Device Performance Metrics. *Hoffman, G.B.*, +, *TNS May 2019 801-809*
- Total Ionizing Dose Effect in LDMOS Oxides and Devices. *Borel, T.*, +, *TNS July 2019 1606-1611*
- Total Ionizing Dose Effects in 3-D NAND Flash Memories. *Bagatin, M.*, +, *TNS Jan. 2019 48-53*
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- Gaussian processes**
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- Total Ionizing Dose Effects in 70-GHz Bandwidth Photodiodes in a SiGe Integrated Photonics Platform. *Goley, P.S.*, +, *TNS Jan. 2019 125-133*
- Genetic algorithms**
- Core Power Control of a Nuclear Research Reactor During Power Maneuvering Transients Using Optimized PID-Controller Based on the Fractional Neutron Point Kinetics Model With Reactivity Feedback Effects. *Rafiei, M.*, +, *TNS July 2019 1804-1812*
- Nonintrusive Automatic Compiler-Guided Reliability Improvement of Embedded Applications Under Proton Irradiation. *Serrano-Cases, A.*, +, *TNS July 2019 1500-1509*
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- Germanium**
- Interface Passivation Strategy for Ge pMOSFET From a TID Perspective. *Ren, Z.*, +, *TNS July 2019 1592-1598*
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Vertical Au/ZnO Schottky Barrier Diode Based on High-Resistivity ZnO Film for X-Ray Dose Measurement. *Zhou, L.*, +, *TNS July 2019 1916-1920*

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Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS₂-Interlayer-MoS₂ Tunneling Junctions. *Wang, P.*, +, *TNS Jan. 2019 420-427*

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Significant Degradation of AlGaN/GaN High-Electron Mobility Transistors With Fast and Thermal Neutron Irradiation. *Lv, L.*, +, *TNS June 2019 886-891*

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FELIX: the New Detector Interface for the ATLAS Experiment. *Wu, W.*, *TNS July 2019 986-992*

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Reliability Calculation With Respect to Functional Failures Induced by Radiation in TMR Arm Cortex-M0 Soft-Core Embedded Into SRAM-Based FPGA. *Benites, L.A.C.*, +, *TNS July 2019 1433-1440*

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APDROC: A Front-End ASIC for APD Array Detector in High Time-Resolved Synchrotron Experiments. *Zhou, Y.*, +, *TNS Oct. 2019 2239-2244*

LOC1d65, a Dual-Channel VCSEL Driver ASIC for Detector Front-End Readout. *Zhou, W.*, +, *TNS July 2019 1115-1122*

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Charge Buildup and Spatial Distribution of Interface Traps in 65-nm pMOS-FETs Irradiated to Ultrahigh Doses. *Bonaldo, S.*, +, *TNS July 2019 1574-1583*

Correlation Between High Dose Rate Irradiation and Low Dose Rate Irradiation for Switched Dose Rate Technique. *Li, X.*, +, *TNS July 2019 1612-1619*

Interface Passivation Strategy for Ge pMOSFET From a TID Perspective. *Ren, Z.*, +, *TNS July 2019 1592-1598*

Synergistic Effects of TID and ATREE in Vertical NPN Bipolar Transistor. *Li, R.*, +, *TNS July 2019 1566-1573*

Total Dose Testing Methodology for Bipolar Circuits Operating in the Jovian Radiation Environment. *Adell, P.R.*, +, *TNS Jan. 2019 163-169*

Total Ionizing Dose Effects in FDSOI Compact Model for IC Design. *Rostand, N.*, +, *TNS July 2019 1628-1633*

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Correlation of Single-Board Computer Ground-Test Data and On-Orbit Upset Rates From the Gaia Mission. *Hansen, D.L.*, +, *TNS Jan. 2019 270-275*

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Effects of Defects to the Performance of CdTe Pad Detectors in IBIC Measurements. *Kalliokoski, M.*, +, *TNS May 2019 846-851*

Enhanced Charge Collection in SiC Power MOSFETs Demonstrated by Pulse-Laser Two-Photon Absorption SEE Experiments. *Johnson, R.A.*, +, *TNS July 2019 1694-1701*

Failure Thresholds in CBRAM Due to Total Ionizing Dose and Displacement Damage Effects. *Taggart, J.L.*, +, *TNS Jan. 2019 69-76*

Heavy Ion Radiation Effects on Hafnium Oxide-Based Resistive Random Access Memory. *Petzold, S.*, +, *TNS July 2019 1715-1718*

Heavy Ion Transport Modeling for Single-Event Burnout in SiC-Based Power Devices. *McPherson, J.A.*, +, *TNS Jan. 2019 474-481*

Impacts of Proton Radiation on Heavy-Ion-Induced Single-Event Transients in 65-nm CMOS Technology. *Wu, Z.*, +, *TNS Jan. 2019 177-183*

Optimizing Optical Parameters to Facilitate Correlation of Laser- and Heavy-Ion-Induced Single-Event Transients in SiGe HBTs. *Idefonso, A.*, +, *TNS Jan. 2019 359-367*

Radiation-Hardened Structure to Reduce Sensitive Range of a Stacked Structure for FDSOI. *Yamada, K.*, +, *TNS July 2019 1418-1426*

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SEE Tests With Ultra Energetic Xe Ion Beam in the CHARM Facility at CERN. *Fernandez-Martinez, P.*, +, *TNS July 2019 1523-1531*

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Radiation Effects in Pinned Photodiode CMOS Image Sensors: Variation of Photodiode Implant Dose. *Belloir, J.*, +, *TNS July 2019 1671-1681*

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Comparison of Radiation Effects in Custom and Commercially Fabricated Resistive Memory Devices. *Holt, J.S.*, +, *TNS Dec. 2019 2398-2407*

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The Effect of Codoping on Pulse-Shape Discrimination Properties of $Gd_3Ga_3Al_2O_{12}:Ce$ Single Crystals. *Rawat, S., +, TNS Dec. 2019 2440-2445*

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Comment on "Radial Dependence of Induced Current Density and Small Pixel Effect in Parallel-Plate Detectors". *Hwang, C., +, TNS Sept. 2019 2153-2155*

Ionization Chambers to Determine Neutron and Gamma-Ray Kerma in a Research Reactor. *Radtke, J., +, TNS Oct. 2019 2160-2169*

Readout Method Based on PCIe Over Optical Fiber for CBM-TOF Super Module Quality Evaluation. *Yuan, J., +, TNS July 2019 1165-1168*

Results From a Prototype Combination TPC Cherenkov Detector With GEM Readout. *Azmoun, B., +, TNS Aug. 2019 1984-1992*

Study on the Real-Time Lossless Data Compression Method Used in the Readout System for Micropattern Gas Detector. *Shen, Z., +, TNS Aug. 2019 2017-2021*

Trigger Merging Module for the J-PARC E16 Experiment. *Ichikawa, M., +, TNS Aug. 2019 2022-2027*

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An Algorithmic Approach to Observed Single Event Effects in Van Allen Probes Solid State Recorders. *Ottman, G., +, TNS Dec. 2019 2408-2416*

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Single-Event Effects in SiC Double-Trench MOSFETs. *Zhou, X., +, TNS Nov. 2019 2312-2318*

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Effects of Gamma Irradiation on Magnetic Properties of Double-Interface $CoFeB/MgO$ Multilayers. *Wang, B., +, TNS Jan. 2019 77-81*

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A Multifield and Frequency Electrically Detected Magnetic Resonance Study of Atomic-Scale Defects in Gamma Irradiated Modern MOS Integrated Circuitry. *Myers, K.J., +, TNS Jan. 2019 405-412*

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Ultra-Low-Noise Balanced Detectors for Optical Time-Domain Measurements. *Lu, Q., +, TNS July 2019 1048-1055*

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SET Sensitivity of Trigate Silicon Nanowire Field-Effect Transistors. *Raine, M., +, TNS Jan. 2019 352-358*

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Optimization Design of Radiation Vault in Jupiter Orbiting Mission. *Wang, J., +, TNS Oct. 2019 2179-2187*

TID and Internal Charging Evaluation for Jupiter Orbiting Mission. *Wang, J., +, TNS Feb. 2019 557-566*

Using the Galileo Solid-State Imaging Instrument as a Sensor of Jovian Energetic Electrons. *Carlton, A., +, TNS Jan. 2019 255-261*

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Adaptive Unscented Kalman Filtering for Reactivity Estimation in Nuclear Power Plants. *Mishra, A.K., +, TNS Dec. 2019 2388-2397*

Model-Based Pileup Events Correction via Kalman-Filter Tunnels. *Liu, B., +, TNS Jan. 2019 528-535*

Reactivity and Delayed Neutron Precursors' Concentration Estimation Based on Recursive Nonlinear Dynamic Data Reconciliation Technique. *Bhatt, T.U., +, TNS Feb. 2019 541-548*

Sensors Incipient Fault Detection and Isolation Using Kalman Filter and Kullback-Leibler Divergence. *Gautam, S., +, TNS May 2019 782-794*

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A 100-ps Pulse Laser as a Calibration Source. *Inome, Y., +, TNS Aug. 2019 1993-1997*

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Laser materials processing

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European XFEL Superconducting Cryomodules Characterization Toward Modules Acceptance and Future LLRF Operation. *Cichalewski, W., +, TNS Sept. 2019 2145-2152*

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Time-Dependent Single-Event Effects in CMOS LC-Oscillators. *Prinzie, J., +, TNS Sept. 2019 2048-2054*

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A Multifield and Frequency Electrically Detected Magnetic Resonance Study of Atomic-Scale Defects in Gamma Irradiated Modern MOS Integrated Circuitry. *Myers, K.J., +, TNS Jan. 2019 405-412*

Active Feedback With Leakage Current Compensation for Charge Sensitive Amplifier Used in Hybrid Pixel Detector. *Kmon, P., +, TNS March 2019 664-673*

Characterization and Modeling of Gigard-TID-Induced Drain Leakage Current of 28-nm Bulk MOSFETs. *Zhang, C., +, TNS Jan. 2019 38-47*

Comparison of Total-Ionizing-Dose Effects in Bulk and SOI FinFETs at 90 and 295 K. *Haeffner, T.D., +, TNS June 2019 911-917*

Current Transport Mechanism for Heavy-Ion Degraded SiC MOSFETs. *Martinella, C., +, TNS July 2019 1702-1709*

Depletion Region in Cr/CdTe/Au Schottky Diode X- and γ -Ray Detectors. *Sklyarchuk, V.M., +, TNS Sept. 2019 2140-2144*

Qualification and Integration Aspects of the DSSC Mega-Pixel X-Ray Imager. *Hansen, K., +, TNS Aug. 2019 1966-1975*

Radiation-Induced Leakage Current and Electric Field Enhancement in CMOS Image Sensor Sense Node Floating Diffusions. *Le Roch, A., +, TNS March 2019 616-624*

Significant Degradation of AlGaIn/GaN High-Electron Mobility Transistors With Fast and Thermal Neutron Irradiation. *Lv, L., +, TNS June 2019 886-891*

Ultra-Low-Noise Balanced Detectors for Optical Time-Domain Measurements. *Lu, Q., +, TNS July 2019 1048-1055*

Learning (artificial intelligence)

Assessment of a Hardware-Implemented Machine Learning Technique Under Neutron Irradiation. *Trindade, M.G., +, TNS July 2019 1441-1448*

Ionizing Radiation Effects Spectroscopy for Analysis of Total-Ionizing Dose Degradation in RF Circuits. *Patel, B., +, TNS Jan. 2019 61-68*

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Online Betatron Tune Feedback in the HLS-II Storage Ring. *Wang, S., +, TNS April 2019 696-701*

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Effect of Gamma-Ray Energy on Image Quality in Passive Gamma Emission Tomography of Spent Nuclear Fuel. *Belanger-Champagne, C., +, TNS Jan. 2019 487-496*

Numerical Simulation and Sensitivity Study of the Rhodium Self-Powered Neutron Detector Used in PWR. *Cao, L., +, TNS April 2019 742-751*

Linear accelerators

Cavity Simulator for European Spallation Source. *Grzegorzolka, M., +, TNS July 2019 1254-1261*

Development of Next-Generation LLRF Control System for J-PARC Rapid Cycling Synchrotron. *Tamura, F., +, TNS July 2019 1242-1248*

European XFEL Superconducting Cryomodules Characterization Toward Modules Acceptance and Future LLRF Operation. *Cichalewski, W., +, TNS Sept. 2019 2145-2152*

High-Power Piezoelectric Tuner Driver for Lorentz Force Compensation. *Makowski, D., +, TNS July 2019 1056-1063*

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Distributed Parameter Control Method for Axial Neutron Flux in Fast Nuclear Reactor. *Yang, M., TNS June 2019 899-910*

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A General-Purpose Digital Pulse Shape Discrimination Algorithm. *Nakhoshtin, M., TNS May 2019 838-845*

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Codoped Lithium Sodium Iodide With Tl⁺ and Eu²⁺ Activators for Neutron Detector. *Bhattacharya, P., +, TNS Sept. 2019 2136-2139*

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FPGA Implementation of RDMA-Based Data Acquisition System Over 100-Gb Ethernet. *Mansour, W., +, TNS July 2019 1138-1143*

Network Time Synchronization of the Readout Electronics for a New Radioactive Gas Detection System. *Hennig, W., +, TNS July 2019 1182-1189*

Readout Electronics for CBM-TOF Supermodule Quality Evaluation. *Jiang, W., +, TNS July 2019 1190-1193*

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Worst Case Test Vectors for Sequential Circuits in Flash-Based FPGAs Exposed to Total Dose. *Abdelwahab, M.S., +, TNS July 2019 1642-1650*

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PETAL: A Multichannel Differential ADC Driver for High-Speed CMOS Image Sensors. *Grace, C.R., +, TNS June 2019 955-959*

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Signal and Noise Performance of a 110-nm CMOS Technology for Photon Science Applications. *Traversi, G., +, TNS April 2019 752-759*

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Estimation of Muon-Induced SEU Rates for 65-nm Bulk and UTBB-SOI SRAMs. *Manabe, S.*, +, *TNS July 2019 1398-1403*

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- Optimization of Parameters for a CsI(Tl) Scintillator Detector Using GEANT4-Based Monte Carlo Simulation Including Optical Photon Transport. *Mitra, P.*, +, *TNS July 2019 1870-1878*
- Proton Radiation Belt Anisotropy as Seen by ICARE-NG Head-A. *Ruffenach, M.*, +, *TNS July 2019 1753-1760*
- SEE Flux and Spectral Hardness Calibration of Neutron Spallation and Mixed-Field Facilities. *Cecchetto, M.*, +, *TNS July 2019 1532-1540*
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- CDP1—A Data Concentrator Prototype for the Deep Underground Neutrino Experiment. *Miryala, S., +, TNS Nov. 2019 2338-2345*
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- GaAs as a Bright Cryogenic Scintillator for the Detection of Low-Energy Electron Recoils From MeV/c² Dark Matter. *Vasiukov, S., +, TNS Nov. 2019 2333-2337*
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- Comparison of SiPM and PMT Performance Using a Cs₂LiYCl₆:Ce³⁺ (CLYC) Scintillator With Two Optical Windows. *Recker, M.C., +, TNS Aug. 2019 1959-1965*
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- Dual-Polarity SiPM Readout Electronics Based on 1-bit Sigma-Delta Modulation Circuit for PET Detector Applications. *Cheng, X., +, TNS Sept. 2019 2107-2113*
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Dark Count Rate Degradation in CMOS SPADs Exposed to X-Rays and Neutrons. *Ratti, L.*, +, *TNS Feb. 2019 567-574*

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Development of Radiation-Hard Solid-State Amplifiers for Kilogray Environments Using COTS Components. *Ohmori, C.*, +, *TNS Oct. 2019 2188-2195*

High-Power Piezoelectric Tuner Driver for Lorentz Force Compensation. *Makowski, D.*, +, *TNS July 2019 1056-1063*

Modular 20 kW, 83.2-MHz Solid-State RF Amplifier for a 10-MeV Cyclotron. *Song, H.S.*, +, *TNS Aug. 2019 1924-1930*

Power combiners

Modular 20 kW, 83.2-MHz Solid-State RF Amplifier for a 10-MeV Cyclotron. *Song, H.S.*, +, *TNS Aug. 2019 1924-1930*

Power control

Core Power Control of a Nuclear Research Reactor During Power Maneuvering Transients Using Optimized PID-Controller Based on the Fractional Neutron Point Kinetics Model With Reactivity Feedback Effects. *Rafiei, M.*, +, *TNS July 2019 1804-1812*

Power converters

A Control System of New Magnet Power Converter for J-PARC Main Ring Upgrade. *Shimogawa, T.*, +, *TNS July 2019 1236-1241*

Power generation control

A Frequency Domain Control Perspective on Xenon Resistance for Load Following of Thermal Nuclear Reactors. *Al Rashdan, A.*, +, *TNS Sept. 2019 2034-2041*

Power HEMT

Radiation Response of AlGaIn-Channel HEMTs. *Martinez, M.J.*, +, *TNS Jan. 2019 344-351*

Power MOSFET

Current Transport Mechanism for Heavy-Ion Degraded SiC MOSFETs. *Martinella, C.*, +, *TNS July 2019 1702-1709*

Development of Radiation-Hard Solid-State Amplifiers for Kilogray Environments Using COTS Components. *Ohmori, C.*, +, *TNS Oct. 2019 2188-2195*

Enhanced Charge Collection in SiC Power MOSFETs Demonstrated by Pulse-Laser Two-Photon Absorption SEE Experiments. *Johnson, R.A.*, +, *TNS July 2019 1694-1701*

Estimating Terrestrial Neutron-Induced SEB Cross Sections and FIT Rates for High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS Jan. 2019 337-343*

Physical Analysis of Damage Sites Introduced by SEGR in Silicon Vertical Power MOSFETs and Implications for Postirradiation Gate-Stress Test. *Kuboyama, S.*, +, *TNS July 2019 1710-1714*

The Effect of 1–10-MeV Neutrons on the JESD89 Test Standard. *Quim, H.*, +, *TNS Jan. 2019 140-147*

Power semiconductor devices

Predicting Cosmic Ray-Induced Failures in Silicon Carbide Power Devices. *Akturk, A.*, +, *TNS July 2019 1828-1832*

Power semiconductor diodes

Heavy Ion Transport Modeling for Single-Event Burnout in SiC-Based Power Devices. *McPherson, J.A.*, +, *TNS Jan. 2019 474-481*

Power system control

Core Power Control of a Nuclear Research Reactor During Power Maneuvering Transients Using Optimized PID-Controller Based on the Fractional Neutron Point Kinetics Model With Reactivity Feedback Effects. *Rafiei, M.*, +, *TNS July 2019 1804-1812*

Preamplifiers

Preliminary Design of Integrated Digitizer Base for Photomultiplier Tube. *Zhu, J.*, +, *TNS July 2019 1130-1137*

Pressure measurement

Gamma Radiation Induced Effects on the Performance of Piezoresistive Pressure Sensors Fabricated Using Different Technologies. *Belwanshi, V.*, +, *TNS Sept. 2019 2055-2062*

Pressure sensors

Gamma Radiation Induced Effects on the Performance of Piezoresistive Pressure Sensors Fabricated Using Different Technologies. *Belwanshi, V.*, +, *TNS Sept. 2019 2055-2062*

Principal component analysis

Non-negative Matrix Factorization of Gamma-Ray Spectra for Background Modeling, Detection, and Source Identification. *Bilton, K.J.*, +, *TNS May 2019 827-837*

Online Fault Detection and Isolation in Advanced Heavy Water Reactor Using Multiscale Principal Component Analysis. *Yellapu, V.S.*, +, *TNS July 2019 1790-1803*

Printed circuits

The MicroTCA Fast Control Board for Generic Control and Data Acquisition Applications in HEP Experiments. *Zhang, J.*, +, *TNS July 2019 1169-1173*

Probability

Characterization and Mitigation of Single-Event Transients in Xilinx 45-nm SRAM-Based FPGA. *Keren, E.*, +, *TNS June 2019 946-954*

Neutron-Induced Multiple-Cell Upsets in 20-nm Bulk SRAM: Angular Sensitivity and Impact of Multiwell Potential Perturbation. *Kato, T.*, +, *TNS July 2019 1381-1389*

Selective Fault Tolerance for Register Files of Graphics Processing Units. *Goncalves, M.*, +, *TNS July 2019 1449-1456*

Production engineering computing

Sensors Incipient Fault Detection and Isolation Using Kalman Filter and Kullback–Leibler Divergence. *Gautam, S.*, +, *TNS May 2019 782-794*

Program compilers

Microcontroller Compiler-Assisted Software Fault Tolerance. *Bohman, M.*, +, *TNS Jan. 2019 223-232*

Program debugging

Online Error Detection Through Trace Infrastructure in ARM Microprocessors. *Pena-Fernandez, M.*, +, *TNS July 2019 1457-1464*

Programmable controllers

Design of EPICS and Web-Based Remote Control Software of Near-Infrared Sky Brightness Monitor in Antarctica. *Wang, Z.*, +, *TNS Aug. 2019 1998-2004*

Protocols

Development of FEB Configuration Test Board for ATLAS NSW Upgrade. *Lu, H.*, +, *TNS Aug. 2019 2028-2032*

Nanoseconds Timing System Based on IEEE 1588 FPGA Implementation. *Pedretti, D.*, +, *TNS July 2019 1151-1158*

The Implementation of Data Acquisition System for EAST Technical Diagnostic System. *Chen, Y.*, +, *TNS July 2019 1304-1309*

Proton accelerators

A Control System of New Magnet Power Converter for J-PARC Main Ring Upgrade. *Shimogawa, T.*, +, *TNS July 2019 1236-1241*

Cavity Simulator for European Spallation Source. *Grzegorzolka, M.*, +, *TNS July 2019 1254-1261*

Development of Next-Generation LLRF Control System for J-PARC Rapid Cycling Synchrotron. *Tamura, F.*, +, *TNS July 2019 1242-1248*

Development of Radiation-Hard Solid-State Amplifiers for Kilogray Environments Using COTS Components. *Ohmori, C.*, +, *TNS Oct. 2019 2188-2195*

Impact of Total Ionizing Dose on Low Energy Proton Single Event Upsets in Nanometer SRAM. *Luo, Y.*, +, *TNS July 2019 1848-1853*

Real-Time Betatron Tune Correction With the Precise Measurement of Magnet Current. *Kurimoto, Y.*, +, *TNS July 2019 1036-1041*

Proton beams

A Control System of New Magnet Power Converter for J-PARC Main Ring Upgrade. *Shimogawa, T.*, +, *TNS July 2019 1236-1241*

Development and Evaluation of a Pixel Detector System for Pencil Beam Scanning Proton Therapy. *Eichin, M.*, +, *TNS July 2019 1273-1279*

Development of Next-Generation LLRF Control System for J-PARC Rapid Cycling Synchrotron. *Tamura, F.*, +, *TNS July 2019 1242-1248*

Electronics of Time-of-Flight Measurement for Back-n at CSNS. *Yu, T.*, +, *TNS July 2019 1095-1099*

Orbit-Like Proton Radiation Sensitivity of CdTe Detectors: Evaluation of Mobility-Lifetime Products and Spectroscopic Properties. *Pascoa, M.P.*, +, *TNS Sept. 2019 2063-2071*

X-Rays, γ -Rays, and Proton Beam Monitoring With Multimode Nitrogen-Doped Optical Fiber. *Girard, S.*, +, *TNS Jan. 2019 306-311*

Proton effects

A Low-Power, Real-Time Displacement Damage Dosimeter. *Warner, J.H.*, +, *TNS Jan. 2019 290-298*

Comparative Study of Cryogenic Versus Room-Temperature Proton Irradiation of N-Channel CCDs and Subsequent Annealing. *Prod'homme, T.*, +, *TNS Jan. 2019 134-139*

Comparison Between In-flight SEL Measurement and Ground Estimation Using Different Facilities. *Kerboub, N.*, +, *TNS July 2019 1541-1547*

- Comparison of Total-Ionizing-Dose Effects in Bulk and SOI FinFETs at 90 and 295 K. *Haeffner, T.D.*, +, *TNS June 2019 911-917*
- Damage Separation in a Bipolar Junction Transistor Following Irradiation With 250-MeV Protons. *Witczak, S.C.*, +, *TNS May 2019 795-800*
- Dose and Single-Event Effects on a Color CMOS Camera for Space Exploration. *Virmondois, C.*, +, *TNS Jan. 2019 104-110*
- Effect of Proton Radiation on Ultrawide Bandgap AlN Schottky Barrier Diodes. *Montes, J.*, +, *TNS Jan. 2019 91-96*
- Effects of Defects to the Performance of CdTe Pad Detectors in IBIC Measurements. *Kallikoski, M.*, +, *TNS May 2019 846-851*
- Effects of Proton Radiation-Induced Defects on Optoelectronic Properties of MoS₂. *Foran, B.*, +, *TNS Jan. 2019 413-419*
- Impacts of Proton Radiation on Heavy-Ion-Induced Single-Event Transients in 65-nm CMOS Technology. *Wu, Z.*, +, *TNS Jan. 2019 177-183*
- Influence of Poly-AlN Passivation on the Performance Improvement of 3-MeV Proton-Irradiated AlGaN/GaN MIS-HEMTs. *Zhang, D.*, +, *TNS Oct. 2019 2215-2219*
- Monte Carlo Simulation of Displacement Damage in Graphene. *Liao, W.*, +, *TNS July 2019 1730-1737*
- Nonintrusive Automatic Compiler-Guided Reliability Improvement of Embedded Applications Under Proton Irradiation. *Serrano-Cases, A.*, +, *TNS July 2019 1500-1509*
- Orbit-Like Proton Radiation Sensitivity of CdTe Detectors: Evaluation of Mobility-Lifetime Products and Spectroscopic Properties. *Pascoa, M.P.*, +, *TNS Sept. 2019 2063-2071*
- Physical Mechanisms of Proton-Induced Single-Event Upset in Integrated Memory Devices. *Caron, P.*, +, *TNS July 2019 1404-1409*
- Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. *Yang, J.*, +, *TNS Sept. 2019 2042-2047*
- Radiation Effects in Pinned Photodiode CMOS Image Sensors: Variation of Photodiode Implant Dose. *Belloir, J.*, +, *TNS July 2019 1671-1681*
- Radiation Response of AlGaN-Channel HEMTs. *Martinez, M.J.*, +, *TNS Jan. 2019 344-351*
- Radiation-Induced Leakage Current and Electric Field Enhancement in CMOS Image Sensor Sense Node Floating Diffusions. *Le Roch, A.*, +, *TNS March 2019 616-624*
- SRAM Dosimeter for Characterizing the TRIUMF Proton and Neutron Beams. *Blackmore, E.*, +, *TNS Jan. 2019 276-281*
- Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS₂-Interlayer-MoS₂ Tunneling Junctions. *Wang, P.*, +, *TNS Jan. 2019 420-427*

Proton radiation effects

Comments by the Editors. *Fleetwood, D.*, +, *TNS July 2019 1352*

Prototypes

CDP1—A Data Concentrator Prototype for the Deep Underground Neutrino Experiment. *Miryala, S.*, +, *TNS Nov. 2019 2338-2345*

Psychology

Few-view computed tomography image reconstruction using mean curvature model with curvature smoothing and surface fitting. *Zheng, Z.*, +, *TNS Feb. 2019 585-596*

Pulse shaping

A General-Purpose Digital Pulse Shape Discrimination Algorithm. *Nakhoshtin, M.*, *TNS May 2019 838-845*

Model-Based Pileup Events Correction via Kalman-Filter Tunnels. *Liu, B.*, +, *TNS Jan. 2019 528-535*

Pulse shaping circuits

Preliminary Design of Integrated Digitizer Base for Photomultiplier Tube. *Zhu, J.*, +, *TNS July 2019 1130-1137*

Q

Quality assurance

Automating Quality Assurance of a Medical Particle Accelerator Safety System Using a Formal Language Driven Test Stand. *Carmona, P.F.*, +, *TNS July 2019 1280-1286*

On the Instantaneous Dose Rate and Angular Dependence of Monolithic Silicon Array Detectors. *Biasi, G.*, +, *TNS Jan. 2019 519-527*

Quantum computing

A Voltage Pulse Generator for Measurement-Device-Independent Quantum Key Distribution. *Zhang, S.*, +, *TNS July 2019 1100-1106*

Control and Readout Software for Superconducting Quantum Computing. *Guo, C.*, +, *TNS July 2019 1222-1227*

Quantum cryptography

A Voltage Pulse Generator for Measurement-Device-Independent Quantum Key Distribution. *Zhang, S.*, +, *TNS July 2019 1100-1106*

Active Phase Stabilization for the Interferometer With 128 Actively Selectable Paths. *Xu, Y.*, +, *TNS July 2019 1076-1080*

Quantum entanglement

A Voltage Pulse Generator for Measurement-Device-Independent Quantum Key Distribution. *Zhang, S.*, +, *TNS July 2019 1100-1106*

R

Radiation belts

Data Exploitation of New Galileo Environmental Monitoring Units. *Sandberg, I.*, +, *TNS July 2019 1761-1769*

Impact of Earth's Magnetic Field Secular Drift on the Low-Altitude Proton Radiation Belt From 1900 to 2050. *Bourdarie, S.*, +, *TNS July 2019 1746-1752*

New Model for the Plasma Electrons Fluxes (Part of GREEN Model). *Sicard, A.*, +, *TNS July 2019 1738-1745*

Proton Radiation Belt Anisotropy as Seen by ICARE-NG Head-A. *Ruffenach, M.*, +, *TNS July 2019 1753-1760*

TID and Internal Charging Evaluation for Jupiter Orbiting Mission. *Wang, J.*, +, *TNS Feb. 2019 557-566*

Radiation detection

A New Floating-gate Radiation Sensor and Readout Circuit in Standard Single-Poly 130-nm CMOS Technology. *Zhang, C.*, +, *TNS July 2019 1906-1915*

Improved Detection of a Mobile Radiological Source by Means of a Temporal Radiation Profile. *VanDerwerken, D.*, +, *TNS Sept. 2019 2080-2087*

Radiation detectors

Development and Performance of a Multipurpose System for the Environmental Radiation Survey Based on a LaBr₃(Ce) Detector. *Ji, Y.*, +, *TNS Dec. 2019 2422-2429*

Radiation effects

An Analytical Study of the Effect of Total Ionizing Dose on Body Current in 130-nm PDSOI I/O nMOSFETs. *Xie, X.*, +, *TNS March 2019 625-634*

Characterization and Modeling of Gigard-TID-Induced Drain Leakage Current of 28-nm Bulk MOSFETs. *Zhang, C.*, +, *TNS Jan. 2019 38-47*

Comments by the Editors. *Fleetwood, D.*, +, *TNS June 2019 854*

Comments by the Editors. *Fleetwood, D.*, +, *TNS July 2019 1352*

Comparison of Radiation Effects in Custom and Commercially Fabricated Resistive Memory Devices. *Holt, J.S.*, +, *TNS Dec. 2019 2398-2407*

Distributed Optical Fiber Sensor Allowing Temperature and Strain Discrimination in Radiation Environments. *Sabatier, C.*, +, *TNS July 2019 1651-1656*

Gate Bias and Length Dependences of Total Ionizing Dose Effects in InGaAs FinFETs on Bulk Si. *Zhao, S.E.*, +, *TNS July 2019 1599-1605*

Ionizing Radiation Effects Spectroscopy for Analysis of Total-Ionizing Dose Degradation in RF Circuits. *Patel, B.*, +, *TNS Jan. 2019 61-68*

Numerical and Experimental Investigation of TID Radiation Effects on the Breakdown Voltage of 400-V SOI NLD MOSFETs. *Shu, L.*, +, *TNS April 2019 710-715*

Optimization Design of Radiation Vault in Jupiter Orbiting Mission. *Wang, J.*, +, *TNS Oct. 2019 2179-2187*

Outstanding Reliability of Heavy-Ion-Irradiated AlInN/GaN on Silicon HFETs. *Vega, N.A.*, +, *TNS Dec. 2019 2417-2421*

Performance Comparison Between SiC and Si Neutron Detectors in Deuterium-Tritium Fusion Neutron Irradiation. *Liu, L.*, +, *TNS April 2019 737-741*

Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. *Yang, J.*, +, *TNS Sept. 2019 2042-2047*

Radiation Effects on High-Speed InGaAs Photodiodes. *Olantera, L.*, +, *TNS July 2019 1663-1670*

SEE Tests With Ultra Energetic Xe Ion Beam in the CHARM Facility at CERN. *Fernandez-Martinez, P.*, +, *TNS July 2019 1523-1531*

Simulation of Transistor-Level Radiation Effects on System-Level Performance Parameters. *Witulski, A.F.*, +, *TNS July 2019 1634-1641*

Special NSREC 2018 Issue of the IEEE Transactions on Nuclear Science Comments by the Editors. *Fleetwood, D.M.*, +, *TNS Jan. 2019 8*

TID Evaluation System With On-Chip Electron Source and Programmable Sensing Mechanisms on FPGA. *Lentaris, G.*, +, *TNS Jan. 2019 312-319*

Total Dose Testing Methodology for Bipolar Circuits Operating in the Jovian Radiation Environment. *Adell, P.R.*, +, *TNS Jan. 2019 163-169*

Total Ionizing Dose Effects in 70-GHz Bandwidth Photodiodes in a SiGe Integrated Photonics Platform. *Goley, P.S.*, +, *TNS Jan. 2019 125-133*

Total-Ionizing-Dose Response of MoS₂ Transistors With ZrO₂ and h-BN Gate Dielectrics. *Wang, P.*, +, *TNS July 2019 1584-1591*

Training a Neural Network on Analog TaO_x ReRAM Devices Irradiated With Heavy Ions: Effects on Classification Accuracy Demonstrated With Cross-Sim. *Jacobs-Gedrim, R.B.*, +, *TNS Jan. 2019 54-60*

Radiation hardening (electronics)

A Bias-Dependent Single-Event-Enabled Compact Model for Bulk FinFET Technologies. *Kauppila, J.S.*, +, *TNS March 2019 635-642*

A Highly Reliable and Energy-Efficient Triple-Node-Upset-Tolerant Latch Design. *Kumar, C.I.*, +, *TNS Oct. 2019 2196-2206*

A Low-Power, Real-Time Displacement Damage Dosimeter. *Warner, J.H.*, +, *TNS Jan. 2019 290-298*

A New Analytical Tool for the Study of Radiation Effects in 3-D Integrated Circuits: Near-Zero Field Magnetoresistance Spectroscopy. *Ashton, J.P.*, +, *TNS Jan. 2019 428-436*

A Single-Event Transient-Tolerant High-Frequency CMOS Quadrature Phase Oscillator. *Jagtap, S.*, +, *TNS Sept. 2019 2072-2079*

An SEU/SET-Tolerant Phase Frequency Detector With Double-Loop Self-Sampling Technology for Clock Data Recovery. *Hengzhou, Y.*, +, *TNS July 2019 1483-1490*

An SRAM-Based Radiation Monitor With Dynamic Voltage Control in 0.18- μm CMOS Technology. *Prinzie, J.*, +, *TNS Jan. 2019 282-289*

Analysis of Clock Single-Event Transients in VLSI Through Built-In Scan Chains. *Wang, L.*, +, *TNS June 2019 875-879*

Analysis of Nanowire Field-Effect Transistors SET Response: Geometrical Considerations. *Gaillardin, M.*, +, *TNS July 2019 1410-1417*

Analysis of Neutron-Induced Multibit-Upset Clusters in a 14-nm Flip-Flop Array. *Kumar, S.*, +, *TNS June 2019 918-925*

Assessment of a Hardware-Implemented Machine Learning Technique Under Neutron Irradiation. *Trindade, M.G.*, +, *TNS July 2019 1441-1448*

Best Practices for Using Electrostatic Discharge Protection Techniques for Single-Event Transient Mitigation. *Cho, M.*, +, *TNS Jan. 2019 240-247*

Characterization and Mitigation of Single-Event Transients in Xilinx 45-nm SRAM-Based FPGA. *Keren, E.*, +, *TNS June 2019 946-954*

Compact Modeling of Single-Event Latchup of Integrated CMOS Circuit. *Al Youssef, A.*, +, *TNS July 2019 1510-1515*

Comparison of the Total Dose Responses of Fully Depleted SOI nMOSFETs With Different Geometries for the Worst Case Bias Conditions. *Zheng, Z.*, +, *TNS Oct. 2019 2207-2214*

Comparison of Total-Ionizing-Dose Effects in Bulk and SOI FinFETs at 90 and 295 K. *Haefner, T.D.*, +, *TNS June 2019 911-917*

Correlation Between High Dose Rate Irradiation and Low Dose Rate Irradiation for Switched Dose Rate Technique. *Li, X.*, +, *TNS July 2019 1612-1619*

Correlation of Single-Board Computer Ground-Test Data and On-Orbit Upset Rates From the Gaia Mission. *Hansen, D.L.*, +, *TNS Jan. 2019 270-275*

Development of Radiation-Hard Solid-State Amplifiers for Kilogray Environments Using COTS Components. *Ohmori, C.*, +, *TNS Oct. 2019 2188-2195*

Directional Dependence of Co-60 Irradiation on the Total Dose Response of Flash Memories. *Gadlage, M.J.*, +, *TNS Jan. 2019 148-154*

Dopant-Type and Concentration Dependence of Total-Ionizing-Dose Response in Piezoresistive Micromachined Cantilevers. *Arutt, C.N.*, +, *TNS Jan. 2019 397-404*

Dose and Single-Event Effects on a Color CMOS Camera for Space Exploration. *Virmondois, C.*, +, *TNS Jan. 2019 104-110*

Empirical Modeling of FinFET SEU Cross Sections Across Supply Voltage. *Harrington, R.C.*, +, *TNS July 2019 1427-1432*

Enhanced Charge Collection in SiC Power MOSFETs Demonstrated by Pulse-Laser Two-Photon Absorption SEE Experiments. *Johnson, R.A.*, +, *TNS July 2019 1694-1701*

Estimating Terrestrial Neutron-Induced SEB Cross Sections and FIT Rates for High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS Jan. 2019 337-343*

Evaluating the Impact of Repetition, Redundancy, Scrubbing, and Partitioning on 28-nm FPGA Reliability Through Neutron Testing. *Kibar, O.O.*, +, *TNS Jan. 2019 248-254*

Evaluation of Radiation Effects in RRAM-Based Neuromorphic Computing System for Inference. *Ye, Z.*, +, *TNS Jan. 2019 97-103*

Experimental Evidence of Ground Albedo Neutron Impact on Soft Error Rate for Nanoscale Devices. *Hubert, G.*, +, *TNS Jan. 2019 262-269*

Exploiting SEU Data Analysis to Extract Fast SET Pulses. *Harrington, R.C.*, +, *TNS June 2019 932-937*

Gamma Radiation Induced Effects on the Performance of Piezoresistive Pressure Sensors Fabricated Using Different Technologies. *Belwanshi, V.*, +, *TNS Sept. 2019 2055-2062*

Heavy Ion Transport Modeling for Single-Event Burnout in SiC-Based Power Devices. *McPherson, J.A.*, +, *TNS Jan. 2019 474-481*

Impact of Complex Logic Cell Layout on the Single-Event Transient Sensitivity. *Aguiar, Y.Q.*, +, *TNS July 2019 1465-1472*

Impact of Irradiation Side on Neutron-Induced Single-Event Upsets in 65-nm Bulk SRAMs. *Abe, S.*, +, *TNS July 2019 1374-1380*

Impact of the Elemental Makeup of an IC in Generating Single-Event Upsets From Low-Energy (<10 MeV) Neutrons: A 3-D nand Flash Case Study. *Conway, P.M.*, +, *TNS Jan. 2019 466-473*

Impact of Total Ionizing Dose on Low Energy Proton Single Event Upsets in Nanometer SRAM. *Luo, Y.*, +, *TNS July 2019 1848-1853*

Impacts of Proton Radiation on Heavy-Ion-Induced Single-Event Transients in 65-nm CMOS Technology. *Wu, Z.*, +, *TNS Jan. 2019 177-183*

Incorporation of Secondary-Ion Information and TCAD Simulation for Atmospheric Neutron Soft-Error-Rate Prediction in SRAMs. *Peng, C.*, +, *TNS Oct. 2019 2170-2178*

Influence of Halo Implantations on the Total Ionizing Dose Response of 28-nm pMOSFETs Irradiated to Ultrahigh Doses. *Bonaldo, S.*, +, *TNS Jan. 2019 82-90*

Interface Passivation Strategy for Ge pMOSFET From a TID Perspective. *Ren, Z.*, +, *TNS July 2019 1592-1598*

Investigation of Single-Event Transients in AlGaN/GaN MIS-Gate HEMTs Using a Focused X-Ray Beam. *Khachatryan, A.*, +, *TNS Jan. 2019 368-375*

Ionizing Radiation Effects Spectroscopy for Analysis of Total-Ionizing Dose Degradation in RF Circuits. *Patel, B.*, +, *TNS Jan. 2019 61-68*

Laser-Induced Single-Event Transients in Black Phosphorus MOSFETs. *Liang, C.*, +, *TNS Jan. 2019 384-388*

Mechanisms of Electron-Induced Single-Event Latchup. *Tali, M.*, +, *TNS Jan. 2019 437-443*

Modeling the Dependence of Single-Event Transients on Strike Location for Circuit-Level Simulation. *Ding, L.*, +, *TNS June 2019 866-874*

Multiscale Modeling of Total Ionizing Dose Effects in Commercial-off-the-Shelf Parts in Bipolar Technologies. *Privat, A.*, +, *TNS Jan. 2019 190-198*

Neutron-Induced Multiple-Cell Upsets in 20-nm Bulk SRAM: Angular Sensitivity and Impact of Multiwell Potential Perturbation. *Kato, T.*, +, *TNS July 2019 1381-1389*

Nonintrusive Automatic Compiler-Guided Reliability Improvement of Embedded Applications Under Proton Irradiation. *Serrano-Cases, A.*, +, *TNS July 2019 1500-1509*

Optimizing Optical Parameters to Facilitate Correlation of Laser- and Heavy-Ion-Induced Single-Event Transients in SiGe HBTs. *Ildefonso, A.*, +, *TNS Jan. 2019 359-367*

Physical Mechanisms of Proton-Induced Single-Event Upset in Integrated Memory Devices. *Caron, P.*, +, *TNS July 2019 1404-1409*

Predicting Cosmic Ray-Induced Failures in Silicon Carbide Power Devices. *Akturk, A.*, +, *TNS July 2019 1828-1832*

- Process Variation Aware Analysis of SRAM SEU Cross Sections Using Data Retention Voltage. *Kobayashi, D.*, +, *TNS Jan. 2019 155-162*
- Pulse Quenching and Charge-Sharing Effects on Heavy-Ion Microbeam Induced ASET in a Full-Custom CMOS OpAmp. *Fontana, A.*, +, *TNS July 2019 1473-1482*
- Pulsed-Laser Induced Single-Event Transients in InGaAs FinFETs on Bulk Silicon Substrates. *Gong, H.*, +, *TNS Jan. 2019 376-383*
- Radiation Effects in Pinned Photodiode CMOS Image Sensors: Variation of Photodiode Implant Dose. *Belloir, J.*, +, *TNS July 2019 1671-1681*
- Radiation Hardness Comparison of CMOS Image Sensor Technologies at High Total Ionizing Dose Levels. *Rizzolo, S.*, +, *TNS Jan. 2019 111-119*
- Radiation Response of AlGaIn-Channel HEMTs. *Martinez, M.J.*, +, *TNS Jan. 2019 344-351*
- Radiation-Hardened Structure to Reduce Sensitive Range of a Stacked Structure for FDSOI. *Yamada, K.*, +, *TNS July 2019 1418-1426*
- Radiation-Induced Leakage Current and Electric Field Enhancement in CMOS Image Sensor Sense Node Floating Diffusions. *Le Roch, A.*, +, *TNS March 2019 616-624*
- Reliability Calculation With Respect to Functional Failures Induced by Radiation in TMR Arm Cortex-M0 Soft-Core Embedded Into SRAM-Based FPGA. *Benites, L.A.C.*, +, *TNS July 2019 1433-1440*
- SEE Flux and Spectral Hardness Calibration of Neutron Spallation and Mixed-Field Facilities. *Cecchetto, M.*, +, *TNS July 2019 1532-1540*
- SEFI Modeling in Readout Integrated Circuit Induced by Heavy Ions at Cryogenic Temperatures. *Artola, L.*, +, *TNS Jan. 2019 452-457*
- Selective Hardening for Neural Networks in FPGAs. *Libano, F.*, +, *TNS Jan. 2019 216-222*
- SET Sensitivity of Trigate Silicon Nanowire Field-Effect Transistors. *Raine, M.*, +, *TNS Jan. 2019 352-358*
- Significant Degradation of AlGaIn/GaN High-Electron Mobility Transistors With Fast and Thermal Neutron Irradiation. *Lv, L.*, +, *TNS June 2019 886-891*
- Similarity Analysis on Neutron- and Negative Muon-Induced MCUs in 65-nm Bulk SRAM. *Liao, W.*, +, *TNS July 2019 1390-1397*
- Single-Event Effects Induced on Atom Switch-based Field-Programmable Gate Array. *Takeuchi, K.*, +, *TNS July 2019 1355-1360*
- Single-Event Latchup in a CMOS-Based ASIC Using Heavy Ions, Laser Pulses, and Coupled Simulation. *Mauguet, M.*, +, *TNS July 2019 1516-1522*
- Single-Event Upsets in SRAMs With Scaling Technology Nodes Induced by Terrestrial, Nuclear Reactor, and Monoenergetic Neutrons. *Chen, W.*, +, *TNS June 2019 856-865*
- SRAM Dosimeter for Characterizing the TRIUMF Proton and Neutron Beams. *Blackmore, E.*, +, *TNS Jan. 2019 276-281*
- Strategies for Removing Common Mode Failures From TMR Designs Deployed on SRAM FPGAs. *Cannon, M.J.*, +, *TNS Jan. 2019 207-215*
- Study of the Impact of the LHC Radiation Environments on the Synergistic Displacement Damage and Ionizing Dose Effect on Electronic Components. *Ferraro, R.*, +, *TNS July 2019 1548-1556*
- Synergistic Effects of TID and ATREE in Vertical NPN Bipolar Transistor. *Li, R.*, +, *TNS July 2019 1566-1573*
- Temperature-Switching During Irradiation as a Test for ELDRS in Linear Bipolar Devices. *Li, X.*, +, *TNS Jan. 2019 199-206*
- The Effect of the Gate-Connected Field Plate on Single-Event Transients in AlGaIn/GaN Schottky-Gate HEMTs. *Khachatrian, A.*, +, *TNS July 2019 1682-1687*
- The Effects of Temperature on the Single-Event Transient Response of a High-Voltage (>30 V) Complementary SiGe-on-SOI Technology. *Omprakash, A.P.*, +, *TNS Jan. 2019 389-396*
- Time-Dependent Single-Event Effects in CMOS LC-Oscillators. *Prinzle, J.*, +, *TNS Sept. 2019 2048-2054*
- Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS₂-Interlayer-MoS₂ Tunneling Junctions. *Wang, P.*, +, *TNS Jan. 2019 420-427*
- Total Ionizing Dose Effects in 3-D NAND Flash Memories. *Bagatin, M.*, +, *TNS Jan. 2019 48-53*
- Total Ionizing Dose Influence on the Single-Event Multiple-Cell Upsets in 65-nm 6-T SRAM. *Zheng, Q.*, +, *TNS June 2019 892-898*
- Total Ionizing Dose Responses of Forward Body Bias Ultra-Thin Body and Buried Oxide FD-SOI Transistors. *Zheng, Q.*, +, *TNS April 2019 702-709*
- Total-Ionizing-Dose Response of MoS₂ Transistors With ZrO₂ and h-BN Gate Dielectrics. *Wang, P.*, +, *TNS July 2019 1584-1591*
- Ultraenergetic Heavy-Ion Beams in the CERN Accelerator Complex for Radiation Effects Testing. *Alia, R.G.*, +, *TNS Jan. 2019 458-465*
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- Using a Temperature-Switching Approach to Evaluate Low-Dose-Rate Ionizing Radiation Effects on SET in Linear Bipolar Circuits. *Yao, S.*, +, *TNS July 2019 1557-1565*
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- Investigation on Passive and Autonomous Mode Operation of Floating Gate Dosimeters. *Brucoli, M.*, +, *TNS July 2019 1620-1627*
- Update and New Features of NTHU Flight Dose Calculator: A Tool for Estimating Aviation Route Doses and Cumulative Spectra of Cosmic Rays in Atmosphere. *Yang, Z.*, +, *TNS Aug. 2019 1931-1941*
- Radiation quenching**
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Modular 20 kW, 83.2-MHz Solid-State RF Amplifier for a 10-MeV Cyclotron. *Song, H.S.*, +, *TNS Aug. 2019 1924-1930*

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Ionizing Radiation Effects Spectroscopy for Analysis of Total-Ionizing Dose Degradation in RF Circuits. *Patel, B.*, +, *TNS Jan. 2019 61-68*

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Reactivity and Delayed Neutron Precursors' Concentration Estimation Based on Recursive Nonlinear Dynamic Data Reconciliation Technique. *Bhatt, T.U.*, +, *TNS Feb. 2019 541-548*

Readout electronics

μ TCA DAQ System and Parallel Reading in CANDLES Experiment. *Khai, B.T.*, +, *TNS July 2019 1174-1181*

A New Floating-gate Radiation Sensor and Readout Circuit in Standard Single-Poly 130-nm CMOS Technology. *Zhang, C.*, +, *TNS July 2019 1906-1915*

A New Interface Board for the Level-1 Muon Barrel Trigger Upgrade of the ATLAS Experiment. *Izzo, V.*, +, *TNS July 2019 1028-1035*

A Prototype Readout System for the ALPIDE Pixel Sensor. *Yang, C.*, +, *TNS July 2019 1088-1094*

A Scanning Test System of p/sFEB Based on FPGA XADC for the ATLAS Phase-I sTGC Upgrade. *Wang, X.*, +, *TNS July 2019 1249-1253*

A Study of $\Sigma\Delta$ -CDS Algorithm for X-Ray CCD Applications. *Lu, B.*, +, *TNS Feb. 2019 597-608*

Active Feedback With Leakage Current Compensation for Charge Sensitive Amplifier Used in Hybrid Pixel Detector. *Kmon, P.*, +, *TNS March 2019 664-673*

ATLAS Tile Calorimeter Calibration and Monitoring Systems. *Marjanovic, M.*, *TNS July 2019 1228-1235*

Back-End Electronics Based on an Asymmetric Network for Low Background and Medium-Scale Physics Experiments. *Calvet, D.*, *TNS July 2019 998-1006*

Characterization of the Radiation Field in the ATLAS Experiment With Timepix Detectors. *Bergmann, B.*, +, *TNS July 2019 1861-1869*

Clock Distribution and Readout Architecture for the ATLAS Tile Calorimeter at the HL-LHC. *Carrio, F.*, +, *TNS July 2019 1014-1020*

Compact Modeling of Single-Event Latchup of Integrated CMOS Circuit. *Al Youssef, A.*, +, *TNS July 2019 1510-1515*

Control and Readout Software for Superconducting Quantum Computing. *Guo, C.*, +, *TNS July 2019 1222-1227*

Dark Count Rate Degradation in CMOS SPADs Exposed to X-Rays and Neutrons. *Ratti, L.*, +, *TNS Feb. 2019 567-574*

Data Acquisition Software for CBM-TOF Super Module Quality Control. *Li, J.*, +, *TNS July 2019 1194-1198*

Design and Evaluation of the LAr Trigger Digitizer Board in the ATLAS Phase-I Upgrade. *Besin, D.*, +, *TNS Aug. 2019 2011-2016*

Design of a Nonvacuum-Cooling Compact CCD Camera for Scientific Detection. *Feng, Y.*, +, *TNS Oct. 2019 2286-2292*

Development and Evaluation of a Pixel Detector System for Pencil Beam Scanning Proton Therapy. *Eichin, M.*, +, *TNS July 2019 1273-1279*

Development of a Time-of-Flight Electronics System for Neutron Beam Profiling at CSNS-WNS. *Chen, H.*, +, *TNS Aug. 2019 2005-2010*

Development of FEB Configuration Test Board for ATLAS NSW Upgrade. *Lu, H.*, +, *TNS Aug. 2019 2028-2032*

Development of the Front-End Electronics for PandaX-III Prototype TPC. *Zhu, D.*, +, *TNS July 2019 1123-1129*

Dual-Polarity SiPM Readout Electronics Based on 1-bit Sigma-Delta Modulation Circuit for PET Detector Applications. *Cheng, X.*, +, *TNS Sept. 2019 2107-2113*

Electronics of Time-of-Flight Measurement for Back-n at CSNS. *Yu, T.*, +, *TNS July 2019 1095-1099*

FELIX-Based Readout of the Single-Phase ProtoDUNE Detector. *Borga, A.*, +, *TNS July 2019 993-997*

FELIX: the New Detector Interface for the ATLAS Experiment. *Wu, W.*, *TNS July 2019 986-992*

Flit-Level InfiniBand Network Simulations of the DAQ System of the LHCb Experiment for Run-3. *Colombo, T.*, +, *TNS July 2019 1159-1164*

General Purpose Readout Board π LUP: Overview and Results. *Giangiacomini, N.*, +, *TNS July 2019 1021-1027*

JUNO DAQ Readout and Event Building Research. *Zeng, T.*, +, *TNS July 2019 1217-1221*

LOCId65, a Dual-Channel VCSEL Driver ASIC for Detector Front-End Readout. *Zhou, W.*, +, *TNS July 2019 1115-1122*

Network Time Synchronization of the Readout Electronics for a New Radioactive Gas Detection System. *Hennig, W.*, +, *TNS July 2019 1182-1189*

PETAL: A Multichannel Differential ADC Driver for High-Speed CMOS Image Sensors. *Grace, C.R.*, +, *TNS June 2019 955-959*

Preliminary Design of Integrated Digitizer Base for Photomultiplier Tube. *Zhu, J.*, +, *TNS July 2019 1130-1137*

Quality Evaluation Electronics for CBM-TOF Super Module. *Li, C.*, +, *TNS July 2019 1042-1047*

Radiation Hardness Comparison of CMOS Image Sensor Technologies at High Total Ionizing Dose Levels. *Rizzolo, S.*, +, *TNS Jan. 2019 111-119*

Readout Electronics for CBM-TOF Supermodule Quality Evaluation. *Jiang, W.*, +, *TNS July 2019 1190-1193*

Readout Electronics for CEPC Semidigital Hadron Calorimeter Preprototype. *Wang, Y.*, +, *TNS July 2019 1064-1069*

Readout Method Based on PCIe Over Optical Fiber for CBM-TOF Super Module Quality Evaluation. *Yuan, J.*, +, *TNS July 2019 1165-1168*

Results From a Prototype Combination TPC Cherenkov Detector With GEM Readout. *Azmoun, B.*, +, *TNS Aug. 2019 1984-1992*

SEFI Modeling in Readout Integrated Circuit Induced by Heavy Ions at Cryogenic Temperatures. *Artola, L.*, +, *TNS Jan. 2019 452-457*

SENSROC12: A Four-Channel Binary-Output Front-End Readout ASIC for Si-PIN-Based Personal Dosimeters. *Duan, Y.*, +, *TNS Aug. 2019 1976-1983*

Software-Defined Radio Readout System for the ECHO Experiment. *Sander, O.*, +, *TNS July 2019 1204-1209*

Study on the Real-Time Lossless Data Compression Method Used in the Readout System for Micropattern Gas Detector. *Shen, Z.*, +, *TNS Aug. 2019 2017-2021*

The DAQ for the Single-Phase DUNE Prototype at CERN. *Sipos, R.*, *TNS July 2019 1210-1216*

The Readout Electronics Research Design and Development for CEPC Scintillators Electromagnetic Calorimeter Prototype. *Zhao, S.*, +, *TNS July 2019 1107-1114*

Trigger Merging Module for the J-PARC E16 Experiment. *Ichikawa, M.*, +, *TNS Aug. 2019 2022-2027*

Real-time systems

Real Time Conference 2018 Overview. *Abbott, D.*, *TNS July 2019 981*

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A Reconstruction Method Through Projection Data Conversion Under the Displaced Detector Scanning for Industrial Cone-Beam CT. *Lin, Q.*, +, *TNS Dec. 2019 2364-2378*

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Reactivity and Delayed Neutron Precursors' Concentration Estimation Based on Recursive Nonlinear Dynamic Data Reconciliation Technique. *Bhatt, T.U.*, +, *TNS Feb. 2019 541-548*

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A New Analog Integrator for Magnetic Diagnostics on EAST. *Wang, Y.*, +, *TNS July 2019 1335-1339*

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Nonintrusive Automatic Compiler-Guided Reliability Improvement of Embedded Applications Under Proton Irradiation. *Serrano-Cases, A.*, +, *TNS July 2019 1500-1509*

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Reliability Calculation With Respect to Functional Failures Induced by Radiation in TMR Arm Cortex-M0 Soft-Core Embedded Into SRAM-Based FPGA. *Benites, L.A.C.*, +, *TNS July 2019 1433-1440*

Strategies for Removing Common Mode Failures From TMR Designs Deployed on SRAM FPGAs. *Cannon, M.J.*, +, *TNS Jan. 2019 207-215*

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Evaluation of Radiation Effects in RRAM-Based Neuromorphic Computing System for Inference. *Ye, Z.*, +, *TNS Jan. 2019 97-103*

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Training a Neural Network on Analog TaO_x ReRAM Devices Irradiated With Heavy Ions: Effects on Classification Accuracy Demonstrated With Cross-Sim. *Jacobs-Gedrim, R.B.*, +, *TNS Jan. 2019 54-60*

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Gamma Radiation Induced Effects on the Performance of Piezoresistive Pressure Sensors Fabricated Using Different Technologies. *Belwanshi, V.*, +, *TNS Sept. 2019 2055-2062*

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Significant Degradation of AlGaIn/GaN High-Electron Mobility Transistors With Fast and Thermal Neutron Irradiation. *Lv, L.*, +, *TNS June 2019 886-891*

Vertical Au/ZnO Schottky Barrier Diode Based on High-Resistivity ZnO Film for X-Ray Dose Measurement. *Zhou, L.*, +, *TNS July 2019 1916-1920*

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Heavy Ion Transport Modeling for Single-Event Burnout in SiC-Based Power Devices. *McPherson, J.A.*, +, *TNS Jan. 2019 474-481*

Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. *Yang, J.*, +, *TNS Sept. 2019 2042-2047*

Thermal Runaway in SiC Schottky Barrier Diodes Caused by Heavy Ions. *Kuboyama, S.*, +, *TNS July 2019 1688-1693*

Vertical Au/ZnO Schottky Barrier Diode Based on High-Resistivity ZnO Film for X-Ray Dose Measurement. *Zhou, L.*, +, *TNS July 2019 1916-1920*

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La- and La-/Ce-Doped BaF₂ Crystals for Future HEP Experiments at the Energy and Intensity Frontiers Part II. *Yang, F.*, +, *TNS Jan. 2019 512-518*

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- Charge Sensitive Amplifier With Offset-Compensated V-to-I Converter for the Mini-SDD-Based DSSC Detector. *Grande, A.*, +, *TNS Oct. 2019 2233-2238*
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- Rebuttal of Comment on "Radial Dependence of Induced Current Density and Small Pixel Effect in Parallel-Plate Detectors". *Samedov, V.V.*, *TNS Sept. 2019 2156-2158*
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- Total Ionizing Dose Responses of Forward Body Bias Ultra-Thin Body and Buried Oxide FD-SOI Transistors. *Zheng, Q.*, +, *TNS April 2019 702-709*

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- Enhanced Charge Collection in SiC Power MOSFETs Demonstrated by Pulse-Laser Two-Photon Absorption SEE Experiments. *Johnson, R.A.*, +, *TNS July 2019 1694-1701*
- Heavy Ion Transport Modeling for Single-Event Burnout in SiC-Based Power Devices. *McPherson, J.A.*, +, *TNS Jan. 2019 474-481*

- Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. *Yang, J.*, +, *TNS Sept. 2019 2042-2047*
- Predicting Cosmic Ray-Induced Failures in Silicon Carbide Power Devices. *Akturk, A.*, +, *TNS July 2019 1828-1832*
- Synergistic Effects of TID and ATREE in Vertical NPN Bipolar Transistor. *Li, R.*, +, *TNS July 2019 1566-1573*
- The Effects of Temperature on the Single-Event Transient Response of a High-Voltage (>30 V) Complementary SiGe-on-SOI Technology. *Omprakash, A.P.*, +, *TNS Jan. 2019 389-396*
- Thermal Runaway in SiC Schottky Barrier Diodes Caused by Heavy Ions. *Kuboyama, S.*, +, *TNS July 2019 1688-1693*
- Total Ionizing Dose Effect in LDMOS Oxides and Devices. *Borel, T.*, +, *TNS July 2019 1606-1611*
- Total Ionizing Dose Effects in FDSOI Compact Model for IC Design. *Rostand, N.*, +, *TNS July 2019 1628-1633*

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- Predicting Cosmic Ray-Induced Failures in Silicon Carbide Power Devices. *Akturk, A.*, +, *TNS July 2019 1828-1832*
- Ultrahigh Energy Heavy Ion Test Beam on Xilinx Kintex-7 SRAM-Based FPGA. *Du, B.*, +, *TNS July 2019 1813-1819*

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- A Bias-Dependent Single-Event-Enabled Compact Model for Bulk FinFET Technologies. *Kauppila, J.S.*, +, *TNS March 2019 635-642*
- A Low-Power, Real-Time Displacement Damage Dosimeter. *Warner, J.H.*, +, *TNS Jan. 2019 290-298*
- Comparison of Radiation Effects in Custom and Commercially Fabricated Resistive Memory Devices. *Holt, J.S.*, +, *TNS Dec. 2019 2398-2407*
- Investigation of Single-Event Transients in AlGaIn/GaN MIS-Gate HEMTs Using a Focused X-Ray Beam. *Khachatryan, A.*, +, *TNS Jan. 2019 368-375*
- Laser-Induced Single-Event Transients in Black Phosphorus MOSFETs. *Liang, C.*, +, *TNS Jan. 2019 384-388*
- Physical Analysis of Damage Sites Introduced by SEGR in Silicon Vertical Power MOSFETs and Implications for Postirradiation Gate-Stress Test. *Kuboyama, S.*, +, *TNS July 2019 1710-1714*
- Pulsed-Laser Induced Single-Event Transients in InGaAs FinFETs on Bulk Silicon Substrates. *Gong, H.*, +, *TNS Jan. 2019 376-383*
- Radiation Response of AlGaIn-Channel HEMTs. *Martinez, M.J.*, +, *TNS Jan. 2019 344-351*
- Temperature-Switching During Irradiation as a Test for ELDRS in Linear Bipolar Devices. *Li, X.*, +, *TNS Jan. 2019 199-206*
- The Effect of 1–10-MeV Neutrons on the JESD89 Test Standard. *Quinn, H.*, +, *TNS Jan. 2019 140-147*
- The Effects of Temperature on the Single-Event Transient Response of a High-Voltage (>30 V) Complementary SiGe-on-SOI Technology. *Omprakash, A.P.*, +, *TNS Jan. 2019 389-396*

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Vertical Au/ZnO Schottky Barrier Diode Based on High-Resistivity ZnO Film for X-Ray Dose Measurement. *Zhou, L.*, +, *TNS July 2019 1916-1920*

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Physical Analysis of Damage Sites Introduced by SEGR in Silicon Vertical Power MOSFETs and Implications for Postirradiation Gate-Stress Test. *Kuboyama, S.*, +, *TNS July 2019 1710-1714*

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Current Transport Mechanism for Heavy-Ion Degraded SiC MOSFETs. *Martinella, C.*, +, *TNS July 2019 1702-1709*

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Influence of Poly-AlN Passivation on the Performance Improvement of 3-MeV Proton-Irradiated AlGaIn/GaN MIS-HEMTs. *Zhang, D.*, +, *TNS Oct. 2019 2215-2219*

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Performance Comparison Between SiC and Si Neutron Detectors in Deuterium-Tritium Fusion Neutron Irradiation. *Liu, L.*, +, *TNS April 2019 737-741*

Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. *Yang, J.*, +, *TNS Sept. 2019 2042-2047*

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- Process Variation Aware Analysis of SRAM SEU Cross Sections Using Data Retention Voltage. *Kobayashi, D.*, *TNS Jan. 2019 155-162*

- Reliability Calculation With Respect to Functional Failures Induced by Radiation in TMR Arm Cortex-M0 Soft-Core Embedded Into SRAM-Based FPGA. *Benites, L.A.C.*, +, *TNS July 2019 1433-1440*
- SEE Flux and Spectral Hardness Calibration of Neutron Spallation and Mixed-Field Facilities. *Cecchetto, M.*, +, *TNS July 2019 1532-1540*
- Selective Hardening for Neural Networks in FPGAs. *Libano, F.*, +, *TNS Jan. 2019 216-222*
- Similarity Analysis on Neutron- and Negative Muon-Induced MCUs in 65-nm Bulk SRAM. *Liao, W.*, +, *TNS July 2019 1390-1397*
- Single-Event Upsets in SRAMs With Scaling Technology Nodes Induced by Terrestrial, Nuclear Reactor, and Monoenergetic Neutrons. *Chen, W.*, +, *TNS June 2019 856-865*
- SRAM Dosimeter for Characterizing the TRIUMF Proton and Neutron Beams. *Blackmore, E.*, +, *TNS Jan. 2019 276-281*
- Strategies for Removing Common Mode Failures From TMR Designs Deployed on SRAM FPGAs. *Cannon, M.J.*, +, *TNS Jan. 2019 207-215*
- The Effect of 1–10-MeV Neutrons on the JESD89 Test Standard. *Quinn, H.*, +, *TNS Jan. 2019 140-147*
- Tibetan-Plateau-Based Real-Time Testing and Simulations of Single-Bit and Multiple-Cell Upsets in QDRII+ SRAM Devices. *Zhang, Z.*, +, *TNS July 2019 1368-1373*
- TID Evaluation System With On-Chip Electron Source and Programmable Sensing Mechanisms on FPGA. *Lentaris, G.*, +, *TNS Jan. 2019 312-319*
- Total Ionizing Dose Influence on the Single-Event Multiple-Cell Upsets in 65-nm 6-T SRAM. *Zheng, Q.*, +, *TNS June 2019 892-898*
- Ultrahigh Energy Heavy Ion Test Beam on Xilinx Kintex-7 SRAM-Based FPGA. *Du, B.*, +, *TNS July 2019 1813-1819*
- Stainless steel**
- Ionization Chambers to Determine Neutron and Gamma-Ray Kerma in a Research Reactor. *Radtke, J.*, +, *TNS Oct. 2019 2160-2169*
- State feedback**
- Optimal State Feedback Controller for a Nuclear Reactor. *Vaswani, P.D.*, +, *TNS Dec. 2019 2379-2387*
- Statistical analysis**
- Ionizing Radiation Effects Spectroscopy for Analysis of Total-Ionizing Dose Degradation in RF Circuits. *Patel, B.*, +, *TNS Jan. 2019 61-68*
- Methodology for Identifying Radiation Effects in Robotic Systems With Mechanical and Control Performance Variations. *Howard, J.T.*, +, *TNS Jan. 2019 184-189*
- Steel**
- ATLAS Tile Calorimeter Calibration and Monitoring Systems. *Marjanovic, M.*, *TNS July 2019 1228-1235*
- Stellarators**
- The Trigger-Time-Event System for Wendelstein 7-X: Overview and First Operational Experiences. *Schacht, J.*, +, *TNS June 2019 969-973*
- Stoichiometry**
- Anomalous Te Inclusion Size and Distribution in CdZnTeSe. *Hwang, S.*, +, *TNS Nov. 2019 2329-2332*
- Storage rings**
- Online Betatron Tune Feedback in the HLS-II Storage Ring. *Wang, S.*, +, *TNS April 2019 696-701*
- Strain measurement**
- Distributed Optical Fiber Sensor Allowing Temperature and Strain Discrimination in Radiation Environments. *Sabatier, C.*, +, *TNS July 2019 1651-1656*
- Streamer chambers**
- Readout Method Based on PCIe Over Optical Fiber for CBM-TOF Super Module Quality Evaluation. *Yuan, J.*, +, *TNS July 2019 1165-1168*
- Superconducting coils**
- The Implementation of Data Acquisition System for EAST Technical Diagnostic System. *Chen, Y.*, +, *TNS July 2019 1304-1309*
- Superconducting devices**
- European XFEL Superconducting Cryomodules Characterization Toward Modules Acceptance and Future LLRF Operation. *Cichalewski, W.*, +, *TNS Sept. 2019 2145-2152*
- Upgrade of the Data Acquisition and Control System of Microwave Reflectometry on the Experimental Advanced Superconducting Tokamak. *Wen, F.*, +, *TNS July 2019 1340-1345*
- Support vector machines**
- Assessment of a Hardware-Implemented Machine Learning Technique Under Neutron Irradiation. *Trindade, M.G.*, +, *TNS July 2019 1441-1448*
- Surface charging**
- Dopant-Type and Concentration Dependence of Total-Ionizing-Dose Response in Piezoresistive Micromachined Cantilevers. *Arutt, C.N.*, +, *TNS Jan. 2019 397-404*
- Surface composition**
- Study on the Effect of Laser Parameters on the SEY of Aluminum Alloy. *Wang, J.*, +, *TNS March 2019 609-615*
- Surface emitting lasers**
- LOC1d65, a Dual-Channel VCSEL Driver ASIC for Detector Front-End Readout. *Zhou, W.*, +, *TNS July 2019 1115-1122*
- Surface fitting**
- Few-view computed tomography image reconstruction using mean curvature model with curvature smoothing and surface fitting. *Zheng, Z.*, +, *TNS Feb. 2019 585-596*
- Surface impedance**
- Electromagnetic Simulations of Mechanical Imperfections for Accelerator Cavities. *Karatay, A.*, +, *TNS Nov. 2019 2295-2304*
- Surface morphology**
- Study on the Effect of Laser Parameters on the SEY of Aluminum Alloy. *Wang, J.*, +, *TNS March 2019 609-615*
- Surface potential**
- Effect of Electron Irradiation and Operating Voltage on the Deep Dielectric Charging Characteristics of Polyimide. *Pan, S.*, +, *TNS Feb. 2019 549-556*
- Surface roughness**
- Effect of Proton Radiation on Ultrawide Bandgap AlN Schottky Barrier Diodes. *Montes, J.*, +, *TNS Jan. 2019 91-96*
- Electromagnetic Simulations of Mechanical Imperfections for Accelerator Cavities. *Karatay, A.*, +, *TNS Nov. 2019 2295-2304*
- Surface topography**
- Study on the Effect of Laser Parameters on the SEY of Aluminum Alloy. *Wang, J.*, +, *TNS March 2019 609-615*
- Surface treatment**
- Depletion Region in Cr/CdTe/Au Schottky Diode X- and γ -Ray Detectors. *Sklyarchuk, V.M.*, +, *TNS Sept. 2019 2140-2144*
- Study on the Effect of Laser Parameters on the SEY of Aluminum Alloy. *Wang, J.*, +, *TNS March 2019 609-615*
- Synchronization**
- A High-Precision 2.5-ps RMS Time Synchronization for Multiple High-Speed Transceivers in FPGA. *Xie, H.*, +, *TNS July 2019 1070-1075*
- Nanoseconds Timing System Based on IEEE 1588 FPGA Implementation. *Pedretti, D.*, +, *TNS July 2019 1151-1158*
- Synchrotrons**
- A Control System of New Magnet Power Converter for J-PARC Main Ring Upgrade. *Shimogawa, T.*, +, *TNS July 2019 1236-1241*
- APDROC: A Front-End ASIC for APD Array Detector in High Time-Resolved Synchrotron Experiments. *Zhou, Y.*, +, *TNS Oct. 2019 2239-2244*
- Development of Next-Generation LLRF Control System for J-PARC Rapid Cycling Synchrotron. *Tamura, F.*, +, *TNS July 2019 1242-1248*
- Development of Radiation-Hard Solid-State Amplifiers for Kilogray Environments Using COTS Components. *Ohmori, C.*, +, *TNS Oct. 2019 2188-2195*
- Improved Rise Approximation Method for Pulse Arrival Timing. *Jokhovets, L.*, +, *TNS Aug. 2019 1942-1951*
- System buses**
- VME Readout at and Below the Conversion Time Limit. *Munch, M.*, +, *TNS Feb. 2019 575-584*
- System-on-chip**
- Nonintrusive Automatic Compiler-Guided Reliability Improvement of Embedded Applications Under Proton Irradiation. *Serrano-Cases, A.*, +, *TNS July 2019 1500-1509*
- OpenCL Implementation of an Adaptive Disruption Predictor Based on a Probabilistic Venn Classifier. *Carpino, A.*, +, *TNS July 2019 1007-1013*
- Preliminary Design of Integrated Digitizer Base for Photomultiplier Tube. *Zhu, J.*, +, *TNS July 2019 1130-1137*
- TID Evaluation System With On-Chip Electron Source and Programmable Sensing Mechanisms on FPGA. *Lentaris, G.*, +, *TNS Jan. 2019 312-319*

T

Tantalum compounds

Training a Neural Network on Analog TaO₃ ReRAM Devices Irradiated With Heavy Ions: Effects on Classification Accuracy Demonstrated With Cross-Sim. *Jacobs-Gedrim, R.B.*, +, *TNS Jan. 2019 54-60*

Technology CAD (electronics)

A Highly Reliable and Energy-Efficient Triple-Node-Upset-Tolerant Latch Design. *Kumar, C.I.*, +, *TNS Oct. 2019 2196-2206*

An Analytical Study of the Effect of Total Ionizing Dose on Body Current in 130-nm PDSOI I/O nMOSFETs. *Xie, X.*, +, *TNS March 2019 625-634*

Analysis of Nanowire Field-Effect Transistors SET Response: Geometrical Considerations. *Gaillardin, M.*, +, *TNS July 2019 1410-1417*

Charge Buildup and Spatial Distribution of Interface Traps in 65-nm pMOSFETs Irradiated to Ultrahigh Doses. *Bonaldo, S.*, +, *TNS July 2019 1574-1583*

Enhanced Charge Collection in SiC Power MOSFETs Demonstrated by Pulse-Laser Two-Photon Absorption SEE Experiments. *Johnson, R.A.*, +, *TNS July 2019 1694-1701*

Estimating Terrestrial Neutron-Induced SEB Cross Sections and FIT Rates for High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS Jan. 2019 337-343*

Incorporation of Secondary-Ion Information and TCAD Simulation for Atmospheric Neutron Soft-Error-Rate Prediction in SRAMs. *Peng, C.*, +, *TNS Oct. 2019 2170-2178*

Modeling the Dependence of Single-Event Transients on Strike Location for Circuit-Level Simulation. *Ding, L.*, +, *TNS June 2019 866-874*

Numerical and Experimental Investigation of TID Radiation Effects on the Breakdown Voltage of 400-V SOI NLD MOSFETs. *Shu, L.*, +, *TNS April 2019 710-715*

Predicting Cosmic Ray-Induced Failures in Silicon Carbide Power Devices. *Akturk, A.*, +, *TNS July 2019 1828-1832*

Radiation-Hardened Structure to Reduce Sensitive Range of a Stacked Structure for FDSOI. *Yamada, K.*, +, *TNS July 2019 1418-1426*

SET Sensitivity of Trigate Silicon Nanowire Field-Effect Transistors. *Raine, M.*, +, *TNS Jan. 2019 352-358*

Single-Event Double Transients in Inverter Chains Designed With Different Transistor Widths. *Zhao, W.*, +, *TNS July 2019 1491-1499*

Time-Dependent Single-Event Effects in CMOS LC-Oscillators. *Prinzie, J.*, +, *TNS Sept. 2019 2048-2054*

Total Ionizing Dose Effects in FDSOI Compact Model for IC Design. *Rostand, N.*, +, *TNS July 2019 1628-1633*

Telecommunication computing

Framework for High-Performance Video Acquisition and Processing in MTCA.4 Form Factor. *Mielczarek, A.*, +, *TNS July 2019 1144-1150*

Online Optimization System for 320-kV Heavy Ion Multidisciplinary Research Facility. *Chang, J.*, +, *TNS July 2019 1782-1789*

PCIe Hot-Plug Support Standardization Challenges in ATCA. *Correia, M.*, +, *TNS Oct. 2019 2282-2285*

Telecontrol

Design of EPICS and Web-Based Remote Control Software of Near-Infrared Sky Brightness Monitor in Antarctica. *Wang, Z.*, +, *TNS Aug. 2019 1998-2004*

Telegraphy

Proton Irradiation-Induced Random Telegraph Signal Noise in a 2k × 2k 4T CMOS Active Pixel Sensor: Testing, Detection, and Modeling. *Wu, M.*, +, *TNS July 2019 1820-1827*

Tellurium compounds

Anomalous Te Inclusion Size and Distribution in CdZnTeSe. *Hwang, S.*, +, *TNS Nov. 2019 2329-2332*

Temperature control

Design of a Nonvacuum-Cooling Compact CCD Camera for Scientific Detection. *Feng, Y.*, +, *TNS Oct. 2019 2286-2292*

Simulation of Transistor-Level Radiation Effects on System-Level Performance Parameters. *Witulski, A.F.*, +, *TNS July 2019 1634-1641*

Survey and Test Environment for ITER EPP#12 In-PP Electrical Components. *Sun, X.*, +, *TNS July 2019 1330-1334*

Temperature measurement

Distributed Optical Fiber Sensor Allowing Temperature and Strain Discrimination in Radiation Environments. *Sabatier, C.*, +, *TNS July 2019 1651-1656*

Survey and Test Environment for ITER EPP#12 In-PP Electrical Components. *Sun, X.*, +, *TNS July 2019 1330-1334*

The Implementation of Data Acquisition System for EAST Technical Diagnostic System. *Chen, Y.*, +, *TNS July 2019 1304-1309*

Thermal Study of the Ironless Inductive Position Sensors Installed on the LHC Collimators. *Grima, A.*, +, *TNS April 2019 688-695*

Temperature sensors

Survey and Test Environment for ITER EPP#12 In-PP Electrical Components. *Sun, X.*, +, *TNS July 2019 1330-1334*

Thermal Study of the Ironless Inductive Position Sensors Installed on the LHC Collimators. *Grima, A.*, +, *TNS April 2019 688-695*

Ternary semiconductors

Anomalous Te Inclusion Size and Distribution in CdZnTeSe. *Hwang, S.*, +, *TNS Nov. 2019 2329-2332*

Thallium

How Excitation Conditions Alter the Afterglow Characteristics of CsI:Tl,Sm Microcolumnar Films. *Miller, S.R.*, +, *TNS Oct. 2019 2229-2232*

LiF/CsI:Tl Scintillator for High-Resolution Neutron Imaging. *Miller, S.R.*, +, *TNS Oct. 2019 2261-2264*

Thermal conductivity

Anomalous Te Inclusion Size and Distribution in CdZnTeSe. *Hwang, S.*, +, *TNS Nov. 2019 2329-2332*

Qualification and Integration Aspects of the DSSC Mega-Pixel X-Ray Imager. *Hansen, K.*, +, *TNS Aug. 2019 1966-1975*

Thermal management (packaging)

Qualification and Integration Aspects of the DSSC Mega-Pixel X-Ray Imager. *Hansen, K.*, +, *TNS Aug. 2019 1966-1975*

Thermal power stations

A Frequency Domain Control Perspective on Xenon Resistance for Load Following of Thermal Nuclear Reactors. *Al Rashdan, A.*, +, *TNS Sept. 2019 2034-2041*

Thermal stability

Toward the Development of an InSb-Based Neutron-Resistant Hall Sensor. *Jankowski, J.*, +, *TNS June 2019 926-931*

Thermal stresses

Physical Analysis of Damage Sites Introduced by SEGR in Silicon Vertical Power MOSFETs and Implications for Postirradiation Gate-Stress Test. *Kuboyama, S.*, +, *TNS July 2019 1710-1714*

Thermionic emission

Effect of Proton Radiation on Ultrawide Bandgap AlN Schottky Barrier Diodes. *Montes, J.*, +, *TNS Jan. 2019 91-96*

Thermoelectric cooling

Design of a Nonvacuum-Cooling Compact CCD Camera for Scientific Detection. *Feng, Y.*, +, *TNS Oct. 2019 2286-2292*

Thin film devices

Comparison of Radiation Effects in Custom and Commercially Fabricated Resistive Memory Devices. *Holt, J.S.*, +, *TNS Dec. 2019 2398-2407*

Thin film transistors

Laser-Induced Single-Event Transients in Black Phosphorus MOSFETs. *Liang, C.*, +, *TNS Jan. 2019 384-388*

Three-dimensional displays

Accelerated X-Ray Diffraction (Tensor) Tomography Simulation Using OptiX GPU Ray-Tracing Engine. *Ulseth, J.*, +, *TNS Dec. 2019 2347-2354*

Three-dimensional integrated circuits

A New Analytical Tool for the Study of Radiation Effects in 3-D Integrated Circuits: Near-Zero Field Magnetoresistance Spectroscopy. *Ashton, J.P.*, +, *TNS Jan. 2019 428-436*

Atmospheric Neutron Soft Errors in 3-D NAND Flash Memories. *Bagatin, M.*, +, *TNS July 2019 1361-1367*

Impact of the Elemental Makeup of an IC in Generating Single-Event Upsets From Low-Energy (<10 MeV) Neutrons: A 3-D nand Flash Case Study. *Conway, P.M.*, +, *TNS Jan. 2019 466-473*

Three-term control

Core Power Control of a Nuclear Research Reactor During Power Maneuvering Transients Using Optimized PID-Controller Based on the Frac-

tional Neutron Point Kinetics Model With Reactivity Feedback Effects. *Rafiei, M., +, TNS July 2019 1804-1812*

Online Betatron Tune Feedback in the HLS-II Storage Ring. *Wang, S., +, TNS April 2019 696-701*

Time projection chambers

Development of the Front-End Electronics for PandaX-III Prototype TPC. *Zhu, D., +, TNS July 2019 1123-1129*

FELIX-Based Readout of the Single-Phase ProtoDUNE Detector. *Borga, A., +, TNS July 2019 993-997*

Results From a Prototype Combination TPC Cherenkov Detector With GEM Readout. *Azmoun, B., +, TNS Aug. 2019 1984-1992*

The DAQ for the Single-Phase DUNE Prototype at CERN. *Sipos, R., TNS July 2019 1210-1216*

Time-digital conversion

A 3.0-ps rms Precision 277-MSamples/s Throughput Time-to-Digital Converter Using Multi-Edge Encoding Scheme in a Kintex-7 FPGA. *Wang, Y., +, TNS Oct. 2019 2275-2281*

A High-Precision 2.5-ps RMS Time Synchronization for Multiple High-Speed Transceivers in FPGA. *Xie, H., +, TNS July 2019 1070-1075*

Time-domain analysis

Ultra-Low-Noise Balanced Detectors for Optical Time-Domain Measurements. *Lu, Q., +, TNS July 2019 1048-1055*

Time-frequency analysis

A Study of $\Sigma\Delta$ -CDS Algorithm for X-Ray CCD Applications. *Lu, B., +, TNS Feb. 2019 597-608*

Ionizing Radiation Effects Spectroscopy for Analysis of Total-Ionizing Dose Degradation in RF Circuits. *Patel, B., +, TNS Jan. 2019 61-68*

Time-varying systems

Distributed Parameter Control Method for Axial Neutron Flux in Fast Nuclear Reactor. *Yang, M., TNS June 2019 899-910*

Titanium

Orbit-Like Proton Radiation Sensitivity of CdTe Detectors: Evaluation of Mobility-Lifetime Products and Spectroscopic Properties. *Pascoa, M.P., +, TNS Sept. 2019 2063-2071*

Titanium compounds

Heavy Ion Radiation Effects on Hafnium Oxide-Based Resistive Random Access Memory. *Petzold, S., +, TNS July 2019 1715-1718*

Interface Passivation Strategy for Ge pMOSFET From a TID Perspective. *Ren, Z., +, TNS July 2019 1592-1598*

Tokamak devices

A New Analog Integrator for Magnetic Diagnostics on EAST. *Wang, Y., +, TNS July 2019 1335-1339*

FPGA Code for the Data Acquisition and Real-Time Processing Prototype of the ITER Radial Neutron Camera. *Fernandes, A., +, TNS July 2019 1318-1323*

Real-Time Data Compression for Data Acquisition Systems Applied to the ITER Radial Neutron Camera. *Santos, B., +, TNS July 2019 1324-1329*

Survey and Test Environment for ITER EPP#12 In-PP Electrical Components. *Sun, X., +, TNS July 2019 1330-1334*

The Design and Performance of the Real-Time Software Architecture for the ITER Radial Neutron Camera. *Cruz, N., +, TNS July 2019 1310-1317*

The Implementation of Data Acquisition System for EAST Technical Diagnostic System. *Chen, Y., +, TNS July 2019 1304-1309*

Upgrade of the Data Acquisition and Control System of Microwave Reflectometry on the Experimental Advanced Superconducting Tokamak. *Wen, F., +, TNS July 2019 1340-1345*

Transceivers

A High-Precision 2.5-ps RMS Time Synchronization for Multiple High-Speed Transceivers in FPGA. *Xie, H., +, TNS July 2019 1070-1075*

General Purpose Readout Board π LUP: Overview and Results. *Giangiacomini, N., +, TNS July 2019 1021-1027*

Trigger Merging Module for the J-PARC E16 Experiment. *Ichikawa, M., +, TNS Aug. 2019 2022-2027*

Transfer functions

Time-Dependent Single-Event Effects in CMOS LC-Oscillators. *Prinzie, J., +, TNS Sept. 2019 2048-2054*

Transient response

Transient Response in PPD CMOS Image Sensors Irradiated by Gamma Rays: Variation of Dose Rates and Integration Times. *Wang, Z., +, TNS June 2019 880-885*

Transistors

Evaluation of Radiation Effects in RRAM-Based Neuromorphic Computing System for Inference. *Ye, Z., +, TNS Jan. 2019 97-103*

Single-Event Double Transients in Inverter Chains Designed With Different Transistor Widths. *Zhao, W., +, TNS July 2019 1491-1499*

Structured Array for Designing High-Speed Multichannel ICs for Nuclear Electronics. *Dvornikov, O., +, TNS Nov. 2019 2305-2311*

Transition radiation detectors

A Scanning Test System of p/sFEB Based on FPGA XADC for the ATLAS Phase-I sTGC Upgrade. *Wang, X., +, TNS July 2019 1249-1253*

Development of FEB Configuration Test Board for ATLAS NSW Upgrade. *Lu, H., +, TNS Aug. 2019 2028-2032*

Transmission electron microscopy

Effects of Proton Radiation-Induced Defects on Optoelectronic Properties of MoS₂. *Foran, B., +, TNS Jan. 2019 413-419*

Transport protocols

Design of EPICS and Web-Based Remote Control Software of Near-Infrared Sky Brightness Monitor in Antarctica. *Wang, Z., +, TNS Aug. 2019 1998-2004*

FPGA Implementation of RDMA-Based Data Acquisition System Over 100-Gb Ethernet. *Mansour, W., +, TNS July 2019 1138-1143*

Trigger circuits

Design and Evaluation of the LAr Trigger Digitizer Board in the ATLAS Phase-I Upgrade. *Besin, D., +, TNS Aug. 2019 2011-2016*

FELIX: the New Detector Interface for the ATLAS Experiment. *Wu, W., TNS July 2019 986-992*

Flit-Level InfiniBand Network Simulations of the DAQ System of the LHCb Experiment for Run-3. *Colombo, T., +, TNS July 2019 1159-1164*

Nanoseconds Timing System Based on IEEE 1588 FPGA Implementation. *Pedretti, D., +, TNS July 2019 1151-1158*

Tritium

Current Gain Degradation Model of Displacement Damage for Drift BJTs. *Li, L., +, TNS April 2019 716-723*

Tumors

Microdosimetric Spectra Measurements on a Clinical Carbon Beam at Nominal Therapeutic Fluence Rate With Silicon Cylindrical Microdosimeters. *Prieto-Pena, J., +, TNS July 2019 1840-1847*

Tungsten

Effects of Defects to the Performance of CdTe Pad Detectors in IBIC Measurements. *Kalliokoski, M., +, TNS May 2019 846-851*

Tunnel field-effect transistors

Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS₂-Interlayer-MoS₂ Tunneling Junctions. *Wang, P., +, TNS Jan. 2019 420-427*

Tunneling

A New Floating-gate Radiation Sensor and Readout Circuit in Standard Single-Poly 130-nm CMOS Technology. *Zhang, C., +, TNS July 2019 1906-1915*

Tunneling magnetoresistance

Effects of Gamma Irradiation on Magnetic Properties of Double-Interface CoFeB/MgO Multilayers. *Wang, B., +, TNS Jan. 2019 77-81*

Two dimensional displays

Measuring the Gain of a Microchannel Plate/Phosphor Assembly Using a Convolutional Neural Network. *Jones, M., +, TNS Dec. 2019 2430-2434*

Two-dimensional electron gas

Significant Degradation of AlGaIn/GaN High-Electron Mobility Transistors With Fast and Thermal Neutron Irradiation. *Lv, L., +, TNS June 2019 886-891*

U

Uncertain systems

Distributed Parameter Control Method for Axial Neutron Flux in Fast Nuclear Reactor. *Yang, M., TNS June 2019 899-910*

Uranium

Quantification of Trace-Level Fissile Samples via Short-Lived Delayed Gamma Spectroscopy. *Skutnik, S.*, +, *TNS Sept. 2019 2123-2135*

V**Vacancies (crystal)**

Anomalous Te Inclusion Size and Distribution in CdZnTeSe. *Hwang, S.*, +, *TNS Nov. 2019 2329-2332*

Investigation of Deep Levels in CdZnTeSe Crystal and Their Effect on the Internal Electric Field of CdZnTeSe Gamma-Ray Detector. *Rejhon, M.*, +, *TNS Aug. 2019 1952-1958*

Very high speed integrated circuits

Automating Quality Assurance of a Medical Particle Accelerator Safety System Using a Formal Language Driven Test Stand. *Carmona, P.F.*, +, *TNS July 2019 1280-1286*

Video streaming

Framework for High-Performance Video Acquisition and Processing in MTCA.4 Form Factor. *Mielczarek, A.*, +, *TNS July 2019 1144-1150*

Virtual instrumentation

Automating Quality Assurance of a Medical Particle Accelerator Safety System Using a Formal Language Driven Test Stand. *Carmona, P.F.*, +, *TNS July 2019 1280-1286*

VLSI

Analysis of Clock Single-Event Transients in VLSI Through Built-In Scan Chains. *Wang, L.*, +, *TNS June 2019 875-879*

Impact of Complex Logic Cell Layout on the Single-Event Transient Sensitivity. *Aguilar, Y.Q.*, +, *TNS July 2019 1465-1472*

Similarity Analysis on Neutron- and Negative Muon-Induced MCUs in 65-nm Bulk SRAM. *Liao, W.*, +, *TNS July 2019 1390-1397*

Voltage control

An SRAM-Based Radiation Monitor With Dynamic Voltage Control in 0.18- μm CMOS Technology. *Prinzie, J.*, +, *TNS Jan. 2019 282-289*

Development of Next-Generation LLRF Control System for J-PARC Rapid Cycling Synchrotron. *Tamura, F.*, +, *TNS July 2019 1242-1248*

Voltage-controlled oscillators

A Single-Event Transient-Tolerant High-Frequency CMOS Quadrature Phase Oscillator. *Jagtap, S.*, +, *TNS Sept. 2019 2072-2079*

CDP1—A Data Concentrator Prototype for the Deep Underground Neutrino Experiment. *Miryala, S.*, +, *TNS Nov. 2019 2338-2345*

Ionizing Radiation Effects Spectroscopy for Analysis of Total-Ionizing Dose Degradation in RF Circuits. *Patel, B.*, +, *TNS Jan. 2019 61-68*

Time-Dependent Single-Event Effects in CMOS LC-Oscillators. *Prinzie, J.*, +, *TNS Sept. 2019 2048-2054*

W**Wavelet transforms**

Online Fault Detection and Isolation in Advanced Heavy Water Reactor Using Multiscale Principal Component Analysis. *Yellapu, V.S.*, +, *TNS July 2019 1790-1803*

Web services

An SOA-Based Design of JUNO DAQ Online Software. *Li, J.*, +, *TNS July 2019 1199-1203*

Wide band gap semiconductors

Characterization and Modeling of Gigard-TID-Induced Drain Leakage Current of 28-nm Bulk MOSFETs. *Zhang, C.*, +, *TNS Jan. 2019 38-47*

Current Transport Mechanism for Heavy-Ion Degraded SiC MOSFETs. *Martinella, C.*, +, *TNS July 2019 1702-1709*

Depletion Region in Cr/CdTe/Au Schottky Diode X- and γ -Ray Detectors. *Sklyarchuk, V.M.*, +, *TNS Sept. 2019 2140-2144*

Dose-Rate Dependence of the Total-Ionizing-Dose Response of GaN-Based HEMTs. *Jiang, R.*, +, *TNS Jan. 2019 170-176*

Effect of Proton Radiation on Ultrawide Bandgap AlN Schottky Barrier Diodes. *Montes, J.*, +, *TNS Jan. 2019 91-96*

Effects of Defects to the Performance of CdTe Pad Detectors in IBIC Measurements. *Kalliokoski, M.*, +, *TNS May 2019 846-851*

Enhanced Charge Collection in SiC Power MOSFETs Demonstrated by Pulse-Laser Two-Photon Absorption SEE Experiments. *Johnson, R.A.*, +, *TNS July 2019 1694-1701*

Estimating Terrestrial Neutron-Induced SEB Cross Sections and FIT Rates for High-Voltage SiC Power MOSFETs. *Ball, D.R.*, +, *TNS Jan. 2019 337-343*

Heavy Ion Transport Modeling for Single-Event Burnout in SiC-Based Power Devices. *McPherson, J.A.*, +, *TNS Jan. 2019 474-481*

III-V Laser Power Converters With Vertically Stacked Subcells Demonstrating Superior Radiation Resilience. *York, M.C.A.*, +, *TNS June 2019 938-945*

Influence of Poly-AlN Passivation on the Performance Improvement of 3-MeV Proton-Irradiated AlGaIn/GaN MIS-HEMTs. *Zhang, D.*, +, *TNS Oct. 2019 2215-2219*

Investigation of Single-Event Transients in AlGaIn/GaN MIS-Gate HEMTs Using a Focused X-Ray Beam. *Khachatryan, A.*, +, *TNS Jan. 2019 368-375*

Neutron Irradiation Effects on the Electrical Properties of Previously Electrically Stressed AlInN/GaN HEMTs. *Petitdidier, S.*, +, *TNS May 2019 810-819*

Performance Comparison Between SiC and Si Neutron Detectors in Deuterium-Tritium Fusion Neutron Irradiation. *Liu, L.*, +, *TNS April 2019 737-741*

Pinning Effect on Fermi Level in 4H-SiC Schottky Diode Caused by 40-MeV Si Ions. *Yang, J.*, +, *TNS Sept. 2019 2042-2047*

Predicting Cosmic Ray-Induced Failures in Silicon Carbide Power Devices. *Akturk, A.*, +, *TNS July 2019 1828-1832*

Radiation Response of AlGaIn-Channel HEMTs. *Martinez, M.J.*, +, *TNS Jan. 2019 344-351*

Significant Degradation of AlGaIn/GaN High-Electron Mobility Transistors With Fast and Thermal Neutron Irradiation. *Lv, L.*, +, *TNS June 2019 886-891*

The Effect of the Gate-Connected Field Plate on Single-Event Transients in AlGaIn/GaN Schottky-Gate HEMTs. *Khachatryan, A.*, +, *TNS July 2019 1682-1687*

Thermal Runaway in SiC Schottky Barrier Diodes Caused by Heavy Ions. *Kuboyama, S.*, +, *TNS July 2019 1688-1693*

Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS₂-Interlayer-MoS₂ Tunneling Junctions. *Wang, P.*, +, *TNS Jan. 2019 420-427*

Vertical Au/ZnO Schottky Barrier Diode Based on High-Resistivity ZnO Film for X-Ray Dose Measurement. *Zhou, L.*, +, *TNS July 2019 1916-1920*

Wideband amplifiers

A Voltage Pulse Generator for Measurement-Device-Independent Quantum Key Distribution. *Zhang, S.*, +, *TNS July 2019 1100-1106*

X**X-ray apparatus**

A Study of $\Sigma\Delta$ -CDS Algorithm for X-Ray CCD Applications. *Lu, B.*, +, *TNS Feb. 2019 597-608*

X-ray astronomy

Measurement of Charge Cloud Size in X-Ray SOI Pixel Sensors. *Hagino, K.*, +, *TNS July 2019 1897-1905*

X-ray detection

Charge Sensitive Amplifier With Offset-Compensated V-to-I Converter for the Mini-SDD-Based DSSC Detector. *Grande, A.*, +, *TNS Oct. 2019 2233-2238*

Measurement of Charge Cloud Size in X-Ray SOI Pixel Sensors. *Hagino, K.*, +, *TNS July 2019 1897-1905*

SENSROC12: A Four-Channel Binary-Output Front-End Readout ASIC for Si-PIN-Based Personal Dosimeters. *Duan, Y.*, +, *TNS Aug. 2019 1976-1983*

Vertical Au/ZnO Schottky Barrier Diode Based on High-Resistivity ZnO Film for X-Ray Dose Measurement. *Zhou, L.*, +, *TNS July 2019 1916-1920*

X-ray diffraction

Accelerated X-Ray Diffraction (Tensor) Tomography Simulation Using OptiX GPU Ray-Tracing Engine. *Ulseth, J.*, +, *TNS Dec. 2019 2347-2354*

Effect of Proton Radiation on Ultrawide Bandgap AlN Schottky Barrier Diodes. *Montes, J.*, +, *TNS Jan. 2019 91-96*

X-ray effects

Dose-Rate Dependence of the Total-Ionizing-Dose Response of GaN-Based HEMTs. *Jiang, R.*, +, *TNS Jan. 2019 170-176*

Ionizing Radiation Effects Spectroscopy for Analysis of Total-Ionizing Dose Degradation in RF Circuits. *Patel, B.*, +, *TNS Jan. 2019 61-68*

The Effect of the Gate-Connected Field Plate on Single-Event Transients in AlGaN/GaN Schottky-Gate HEMTs. *Khachatrian, A.*, +, *TNS July 2019 1682-1687*

Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS₂-Interlayer-MoS₂ Tunneling Junctions. *Wang, P.*, +, *TNS Jan. 2019 420-427*

X-ray imaging

A Reconstruction Method Through Projection Data Conversion Under the Displaced Detector Scanning for Industrial Cone-Beam CT. *Lin, Q.*, +, *TNS Dec. 2019 2364-2378*

Accelerated X-Ray Diffraction (Tensor) Tomography Simulation Using OptiX GPU Ray-Tracing Engine. *Ulseth, J.*, +, *TNS Dec. 2019 2347-2354*

How Excitation Conditions Alter the Afterglow Characteristics of CsI:Tl,Sm Microcolumnar Films. *Miller, S.R.*, +, *TNS Oct. 2019 2229-2232*

Qualification and Integration Aspects of the DSSC Mega-Pixel X-Ray Imager. *Hansen, K.*, +, *TNS Aug. 2019 1966-1975*

X-ray lasers

European XFEL Superconducting Cryomodules Characterization Toward Modules Acceptance and Future LLRF Operation. *Cichalewski, W.*, +, *TNS Sept. 2019 2145-2152*

X-ray microscopy

Computed Laminography of CFRP Using an X-Ray Cone-Beam and Robotic Sample Manipulator Systems. *Wood, C.E.*, +, *TNS March 2019 655-663*

X-ray photoelectron spectra

Study on the Effect of Laser Parameters on the SEY of Aluminum Alloy. *Wang, J.*, +, *TNS March 2019 609-615*

X-ray spectroscopy

Operational Conditions of Silicon Pixel Arrays for X-Ray Spectroscopy. *Giacomini, G.*, +, *TNS Oct. 2019 2245-2251*

Xenon

A Frequency Domain Control Perspective on Xenon Resistance for Load Following of Thermal Nuclear Reactors. *Al Rashdan, A.*, +, *TNS Sept. 2019 2034-2041*

Development of the Front-End Electronics for PandaX-III Prototype TPC. *Zhu, D.*, +, *TNS July 2019 1123-1129*

SEE Tests With Ultra Energetic Xe Ion Beam in the CHARM Facility at CERN. *Fernandez-Martinez, P.*, +, *TNS July 2019 1523-1531*

Y**Young's modulus**

Dopant-Type and Concentration Dependence of Total-Ionizing-Dose Response in Piezoresistive Micromachined Cantilevers. *Arutt, C.N.*, +, *TNS Jan. 2019 397-404*

Yttrium

Development of Yttrium-Doped BaF₂ Crystals for Future HEP Experiments. *Hu, C.*, +, *TNS July 2019 1854-1860*

Yttrium compounds

Development of Yttrium-Doped BaF₂ Crystals for Future HEP Experiments. *Hu, C.*, +, *TNS July 2019 1854-1860*

Z**Zinc compounds**

Anomalous Te Inclusion Size and Distribution in CdZnTeSe. *Hwang, S.*, +, *TNS Nov. 2019 2329-2332*

Investigation of Deep Levels in CdZnTeSe Crystal and Their Effect on the Internal Electric Field of CdZnTeSe Gamma-Ray Detector. *Rejhon, M.*, +, *TNS Aug. 2019 1952-1958*

Vertical Au/ZnO Schottky Barrier Diode Based on High-Resistivity ZnO Film for X-Ray Dose Measurement. *Zhou, L.*, +, *TNS July 2019 1916-1920*

Zirconium compounds

Total-Ionizing-Dose Response of MoS₂ Transistors With ZrO₂ and h-BN Gate Dielectrics. *Wang, P.*, +, *TNS July 2019 1584-1591*