

# 2019 Index

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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.

#### AUTHOR INDEX

##### A

- Abdomerovic, I.**, and Raman, S., A Millimeter Wave Loss-Aware Methodology for Switchless PALNA Integrated Circuit Design; *TCAD Dec. 2019 2177-2190*
- Afzali-Kusha, A.**, see Tabatabaei-Nikkhah, S., *TCAD Aug. 2019 1452-1465*
- Agarwal, V.**, see Singla, A., *TCAD April 2019 654-667*
- Ahn, E.C.**, see Haj Aboutalebi, A., *TCAD Dec. 2019 2229-2242*
- Ahn, S.**, see Cho, J., *TCAD Nov. 2019 2086-2098*
- Ain, A.**, and Dasgupta, P., Interpreting Local Variables in AMS Assertions During Simulation; *TCAD May 2019 980-984*
- Akilan, T.**, see Safaei, A., *TCAD Nov. 2019 2127-2138*
- Aksanli, B.**, see Chan, C.S., *TCAD Sept. 2019 1689-1702*
- Akyurek, A.S.**, see Chan, C.S., *TCAD Sept. 2019 1689-1702*
- Alizadeh, B.**, and Sharafinejad, S.R., Incremental SAT-Based Accurate Auto-Correction of Sequential Circuits Through Automatic Test Pattern Generation; *TCAD Feb. 2019 245-252*
- Anagnostopoulos, I.**, see Tasoulas, Z., *TCAD May 2019 975-979*
- Ananthanarayanan, G.**, see Wang, S., *TCAD March 2019 393-406*
- Ansaloni, G.**, see Zacharopoulos, G., *TCAD April 2019 741-754*
- Asadi, H.**, see Tamimi, S., *TCAD March 2019 466-479*

##### B

- Babacan, Y.**, see Yesil, A., *TCAD June 2019 1123-1132*
- Banerjee, A.**, see Bhattacharjee, S., *TCAD May 2019 874-887*
- Barke, E.**, see Zivkovic, C., *TCAD Oct. 2019 1785-1798*
- Beckler, M.L.**, and Blanton, R.D., On-Chip Diagnosis of Generalized Delay Failures Using Compact Fault Dictionaries; *TCAD Feb. 2019 322-334*
- Beerel, P.A.**, see Cheng, H., *TCAD July 2019 1305-1316*
- Beigne, E.**, see Jahier Pagliari, D., *TCAD June 2019 1042-1055*
- Benini, L.**, see Das, S., *TCAD June 2019 1095-1108*
- Betz, V.**, see Murray, K.E., *TCAD April 2019 719-732*
- Bhaduri, P.**, see Chouksey, R., *TCAD July 2019 1378-1382*
- Bhattacharjee, S.**, Banerjee, A., Ho, T., Chakrabarty, K., and Bhattacharya, B.B., Efficient Generation of Dilution Gradients With Digital Microfluidic Biochips; *TCAD May 2019 874-887*
- Bhattacharjee, S.**, see Poddar, S., *TCAD Feb. 2019 253-266*
- Bhattacharya, B.B.**, see Bhattacharjee, S., *TCAD May 2019 874-887*
- Bhattacharya, B.B.**, see Poddar, S., *TCAD Feb. 2019 253-266*
- Bhattacharya, B.B.**, see Poddar, S., *TCAD Oct. 2019 1886-1899*
- Bhattacharya, B.B.**, see Pradhan, M., *TCAD Dec. 2019 2343-2356*
- Bhattacharya, B.B.**, see Pradhan, M., *TCAD Dec. 2019 2343-2356*
- Bian, J.**, see Yi, M., *TCAD April 2019 755-766*
- Bishnoi, R.**, see Gebregiorgis, A., *TCAD March 2019 439-452*
- Blanton, R.D.**, see Ren, X., *TCAD Jan. 2019 149-162*

- Blanton, R.D.**, see Beckler, M.L., *TCAD Feb. 2019 322-334*
- Bodik, R.**, see Willsey, M., *TCAD March 2019 407-418*
- Bonato, V.**, see de Souza Rosa, L., *TCAD May 2019 912-925*
- Bossuyt, F.**, see Plovie, B., *TCAD Sept. 2019 1648-1660*
- Bouganis, C.**, see de Souza Rosa, L., *TCAD May 2019 912-925*
- Brayton, R.K.**, see Dai, Y., *TCAD Feb. 2019 366-379*
- Brisk, P.**, Chakraborty, S., Coelho, C., Gamatie, A., Ghosh, S., and Jiao, X., TCAD EIC Message: February 2019; *TCAD Feb. 2019 197-198*
- Brisk, P.**, see O'Neal, K., *TCAD June 2019 1133-1146*

##### C

- Cabodi, G.**, Camurati, P.E., Palena, M., Pasini, P., and Vendraminetto, D., Logic Synthesis for Interpolant Circuit Compaction; *TCAD Feb. 2019 380-384*
- Cai, R.**, see Li, Z., *TCAD Aug. 2019 1543-1556*
- Cai, Y.**, see Cheng, M., *TCAD May 2019 834-847*
- Cai, Y.**, see Wang, X., *TCAD Oct. 2019 1844-1857*
- Campbell, K.**, Lin, C., and Chen, D., Cost-Effective Error Detection Through Mersenne Modulo Shadow Datapaths; *TCAD June 2019 1056-1069*
- Campbell, K.**, Lin, D., He, L., Yang, L., Gurumani, S.T., Rupnow, K., Mitra, S., and Chen, D., Hybrid Quick Error Detection: Validation and Debug of SoCs Through High-Level Synthesis; *TCAD July 2019 1345-1358*
- Camurati, P.E.**, see Cabodi, G., *TCAD Feb. 2019 380-384*
- Canelas, A.**, see Martins, R., *TCAD June 2019 989-1002*
- Cao, K.**, Zhou, J., Cong, P., Li, L., Wei, T., Chen, M., Hu, S., and Hu, X.S., Affinity-Driven Modeling and Scheduling for Makespan Optimization in Heterogeneous Multiprocessor Systems; *TCAD July 2019 1189-1202*
- Cao, K.**, see Li, L., *TCAD Sept. 2019 1599-1610*
- Cao, K.**, Xu, G., Zhou, J., Wei, T., Chen, M., and Hu, S., QoS-Adaptive Approximate Real-Time Computation for Mobility-Aware IoT Lifetime Optimization; *TCAD Oct. 2019 1799-1810*
- Cao, Q.**, see Zhang, W., *TCAD April 2019 780-784*
- Cao, X.**, Xiao, L., Li, J., Zhang, R., Liu, S., and Wang, J., A Layout-Based Soft Error Vulnerability Estimation Approach for Combinational Circuits Considering Single Event Multiple Transients (SEMTs); *TCAD June 2019 1109-1122*
- Carrabina, J.**, see Matos, J.M., *TCAD April 2019 692-704*
- Castro-Lopez, R.**, see Martins, R., *TCAD June 2019 989-1002*
- Ceze, L.**, see Willsey, M., *TCAD March 2019 407-418*
- Chakrabarty, K.**, see Bhattacharjee, S., *TCAD May 2019 874-887*
- Chakrabarty, K.**, see Poddar, S., *TCAD Feb. 2019 253-266*
- Chakrabarty, K.**, see Tang, J., *TCAD April 2019 589-603*
- Chakrabarty, K.**, see Ibrahim, M., *TCAD July 2019 1237-1250*
- Chakrabarty, K.**, see Jin, S., *TCAD July 2019 1331-1344*
- Chakrabarty, K.**, see Xia, L., *TCAD Sept. 2019 1611-1624*
- Chakrabarty, K.**, see Koneru, A., *TCAD Oct. 2019 1942-1955*
- Chakrabarty, K.**, see Shayan, M., *TCAD Oct. 2019 1831-1843*
- Chakrabarty, K.**, see Wang, S., *TCAD Oct. 2019 1928-1941*
- Chakrabarty, K.**, see Pradhan, M., *TCAD Dec. 2019 2343-2356*
- Chakrabarty, K.**, see Ibrahim, M., *TCAD Dec. 2019 2255-2270*
- Chakraborty, S.**, see Brisk, P., *TCAD Feb. 2019 197-198*
- Chan, C.S.**, Akyurek, A.S., Aksanli, B., and Rosing, T.S., Optimal Performance-Aware Cooling on Enterprise Servers; *TCAD Sept. 2019 1689-1702*
- Chang, D.**, Lin, I., Lin, Y., and Huang, W., OCMAS: Online Page Clustering for Multibank Scratchpad Memory; *TCAD Feb. 2019 220-233*
- Chang, H.**, see Yi, M., *TCAD April 2019 755-766*
- Chang, M.F.**, see Du, Y., *TCAD Oct. 2019 1811-1819*
- Chang, Y.**, see Chen, Y., *TCAD Jan. 2019 29-42*
- Chang, Y.**, see Duong, L.H.K., *TCAD Jan. 2019 43-56*
- Chang, Y.**, see Su, Y., *TCAD Feb. 2019 267-280*

- Chang, Y.**, *see* Lu, H., *TCAD Aug. 2019 1438-1451*
- Chavez-Hurtado, J.L.**, *see* Rangel-Patino, F.E., *TCAD April 2019 733-740*
- Chen, B.**, *see* Lee, K., *TCAD Feb. 2019 309-321*
- Chen, D.**, *see* Campbell, K., *TCAD June 2019 1056-1069*
- Chen, D.**, *see* Campbell, K., *TCAD July 2019 1345-1358*
- Chen, H.**, *see* Wang, K., *TCAD Dec. 2019 2321-2329*
- Chen, J.**, *see* Ma, Y., *TCAD Dec. 2019 2298-2311*
- Chen, J.**, *see* Yuan, J., *TCAD Dec. 2019 2330-2342*
- Chen, M.**, *see* Lyu, Y., *TCAD Jan. 2019 163-176*
- Chen, M.**, *see* Cao, K., *TCAD July 2019 1189-1202*
- Chen, M.**, *see* Li, L., *TCAD Sept. 2019 1599-1610*
- Chen, M.**, *see* Cao, K., *TCAD Oct. 2019 1799-1810*
- Chen, M.**, *see* Zhou, J., *TCAD Dec. 2019 2215-2228*
- Chen, P.**, *see* Liu, W., *TCAD Jan. 2019 1-14*
- Chen, Q.**, *see* Zhang, F., *TCAD March 2019 489-498*
- Chen, Q.**, *see* Fu, Y., *TCAD Nov. 2019 2139-2152*
- Chen, R.**, Zhang, C., Wang, Y., Shen, Z., Liu, D., Shao, Z., and Guan, Y., DCR: Deterministic Crash Recovery for NAND Flash Storage Systems; *TCAD Dec. 2019 2201-2214*
- Chen, S.**, Xu, Q., and Yu, B., Adaptive 3D-IC TSV Fault Tolerance Structure Generation; *TCAD May 2019 949-960*
- Chen, T.**, *see* Chen, Y., *TCAD Jan. 2019 29-42*
- Chen, T.**, *see* Hsieh, S., *TCAD Jan. 2019 136-148*
- Chen, T.**, *see* Zhou, X., *TCAD Oct. 2019 1858-1871*
- Chen, W.**, Cheng, S., and Hsiu, P., A User-Centric CPU-GPU Governing Framework for 3-D Mobile Games; *TCAD May 2019 961-974*
- Chen, X.**, *see* Duong, L.H.K., *TCAD Jan. 2019 43-56*
- Chen, X.**, *see* Wu, S., *TCAD May 2019 822-833*
- Chen, X.**, *see* Mao, B., *TCAD June 2019 1017-1027*
- Chen, X.**, *see* Jiang, W., *TCAD Aug. 2019 1515-1528*
- Chen, X.**, *see* Du, Y., *TCAD Oct. 2019 1811-1819*
- Chen, Y.**, Yang, M., Chang, Y., Chen, T., Wei, H., and Shih, W., Co-Optimizing Storage Space Utilization and Performance for Key-Value Solid State Drives; *TCAD Jan. 2019 29-42*
- Chen, Y.**, *see* Yang, J., *TCAD Jan. 2019 57-69*
- Chen, Y.**, *see* Huang, H., *TCAD Feb. 2019 208-219*
- Chen, Y.**, *see* Zhou, X., *TCAD Oct. 2019 1858-1871*
- Chen, Y.**, *see* Liu, C., *TCAD Dec. 2019 2284-2297*
- Chen, Z.**, *see* Li, Z., *TCAD July 2019 1251-1264*
- Chen, Z.**, *see* Xu, Y., *TCAD Nov. 2019 2172-2176*
- Cheng, C.**, Kahng, A.B., Kang, I., and Wang, L., RePlace: Advancing Solution Quality and Routability Validation in Global Placement; *TCAD Sept. 2019 1717-1730*
- Cheng, H.**, Wang, H., Zhang, M., Hand, D., and Beerel, P.A., Automatic Retiming of Two-Phase Latch-Based Resilient Circuits; *TCAD July 2019 1305-1316*
- Cheng, L.**, *see* Wang, Y., *TCAD Nov. 2019 1995-2007*
- Cheng, M.**, Xia, L., Zhu, Z., Cai, Y., Xie, Y., Wang, Y., and Yang, H., TIME: A Training-in-Memory Architecture for RRAM-Based Deep Neural Networks; *TCAD May 2019 834-847*
- Cheng, S.**, *see* Chen, W., *TCAD May 2019 961-974*
- Cheng, Y.**, Li, H., Wang, Y., and Li, X., Cluster Restoration-Based Trace Signal Selection for Post-Silicon Debug; *TCAD April 2019 767-779*
- Cheong, M.**, *see* Jang, J., *TCAD Jan. 2019 190-194*
- Cheung, A.**, *see* Willsey, M., *TCAD March 2019 407-418*
- Chi, Y.**, *see* Dai, G., *TCAD April 2019 640-653*
- Chinnery, D.**, *see* Seitanidis, I., *TCAD Aug. 2019 1501-1514*
- Cho, J.**, Hwang, K., Jeung, S., and Ahn, S., An Efficient Extrapolation Method of Band-Limited S-Parameters for Extracting Causal Impulse Responses; *TCAD Nov. 2019 2086-2098*
- Cho, K.**, Lee, Y., Seo, S., and Kang, S., An Efficient BIRA Utilizing Characteristics of Spare Pivot Faults; *TCAD March 2019 551-561*
- Choi, S.**, Shim, S., and Shin, Y., Neural Network Classifier-Based OPC With Imbalanced Training Data; *TCAD May 2019 938-948*
- Chouksey, R.**, Karfa, C., and Bhaduri, P., Translation Validation of Code Motion Transformations Involving Loops; *TCAD July 2019 1378-1382*
- Chowdhury, S.**, *see* Liu, D., *TCAD June 2019 1147-1160*
- Chung, E.**, *see* Hong, J., *TCAD March 2019 453-465*
- Chung, J.**, *see* Kang, Y., *TCAD Nov. 2019 2167-2171*
- Chung, J.**, Shin, T., and Yang, J., Simplifying Deep Neural Networks for FPGA-Like Neuromorphic Systems; *TCAD Nov. 2019 2032-2042*
- Ciesielski, M.**, *see* Yu, C., *TCAD Feb. 2019 354-365*
- Closas, P.**, *see* Luo, C., *TCAD Dec. 2019 2191-2200*
- Coelho, C.**, *see* Brisk, P., *TCAD Feb. 2019 197-198*
- Cong, J.**, *see* Zhang, C., *TCAD Nov. 2019 2072-2085*
- Cong, P.**, *see* Cao, K., *TCAD July 2019 1189-1202*
- Cong, P.**, *see* Li, L., *TCAD Sept. 2019 1599-1610*
- Constantinides, G.**, *see* Murray, K.E., *TCAD April 2019 719-732*
- Coriat, D.**, *see* Jahier Pagliari, D., *TCAD June 2019 1042-1055*
- Coskun, A.K.**, *see* Sahin, O., *TCAD Aug. 2019 1557-1570*
- Coussy, P.**, *see* Das, S., *TCAD June 2019 1095-1108*

## D

- Da Silva, M.**, Flottes, M., Di Natale, G., and Rouzeyre, B., Preventing Scan Attacks on Secure Circuits Through Scan Chain Encryption; *TCAD March 2019 538-550*
- Dai, G.**, Huang, T., Chi, Y., Zhao, J., Sun, G., Liu, Y., Wang, Y., Xie, Y., and Yang, H., GraphH: A Processing-in-Memory Architecture for Large-Scale Graph Processing; *TCAD April 2019 640-653*
- Dai, Y.**, and Brayton, R.K., Verification and Synthesis of Clock-Gated Circuits; *TCAD Feb. 2019 366-379*
- Das, S.**, Martin, K.J.M., Rossi, D., Coussy, P., and Benini, L., An Energy-Efficient Integrated Programmable Array Accelerator and Compilation Flow for Near-Sensor Ultralow Power Processing; *TCAD June 2019 1095-1108*
- Dasgupta, P.**, *see* Ain, A., *TCAD May 2019 980-984*
- de Brisolará, L.B.**, *see* Huang, K., *TCAD Sept. 2019 1744-1757*
- de Souza Rosa, L.**, Bouganis, C., and Bonato, V., Scaling Up Modulo Scheduling for High-Level Synthesis; *TCAD May 2019 912-925*
- Derrien, S.**, *see* Rokicki, S., *TCAD Oct. 2019 1872-1885*
- Di Natale, G.**, *see* Da Silva, M., *TCAD March 2019 538-550*
- Dimitrakopoulos, G.**, *see* Seitanidis, I., *TCAD Jan. 2019 96-108*
- Dimitrakopoulos, G.**, *see* Seitanidis, I., *TCAD Aug. 2019 1501-1514*
- Ding, A.A.**, *see* Luo, C., *TCAD Dec. 2019 2191-2200*
- Ding, C.**, *see* Li, Z., *TCAD Aug. 2019 1543-1556*
- Ding, D.**, *see* Liu, D., *TCAD June 2019 1147-1160*
- Dong, G.**, *see* Zhu, W., *TCAD July 2019 1278-1290*
- Dong, Q.**, *see* Jiang, W., *TCAD Aug. 2019 1413-1426*
- Draper, J.**, *see* Li, Z., *TCAD Aug. 2019 1543-1556*
- Drechsler, R.**, *see* Herdt, V., *TCAD July 2019 1359-1372*
- Du, J.**, *see* Du, Y., *TCAD Oct. 2019 1811-1819*
- Du, L.**, *see* Du, Y., *TCAD Oct. 2019 1811-1819*
- Du, Y.**, Chang, M.F., Du, L., Gu, X., Du, J., Wang, X.S., Hu, B., Jiang, M., Chen, X., and Iyer, S.S., An Analog Neural Network Computing Engine Using CMOS-Compatible Charge-Trap-Transistor (CTT); *TCAD Oct. 2019 1811-1819*
- Du, Y.**, *see* Zhang, M., *TCAD Dec. 2019 2312-2320*
- Du, Z.**, *see* Zhou, X., *TCAD Oct. 2019 1858-1871*
- Duan, L.**, *see* Haj Aboutalebi, A., *TCAD Dec. 2019 2229-2242*
- Duong, L.H.K.**, Yang, P., Wang, Z., Chang, Y., Xu, J., Wang, Z., and Chen, X., Crosstalk Noise Reduction Through Adaptive Power Control in Inter/Intra-Chip Optical Networks; *TCAD Jan. 2019 43-56*
- Durand, Y.**, *see* Jahier Pagliari, D., *TCAD June 2019 1042-1055*

## E

- Ebrahimi, Z.**, *see* Tamimi, S., *TCAD March 2019 466-479*
- Efendioglu, M.**, Sen, A., and Koroglu, Y., Bug Prediction of SystemC Models Using Machine Learning; *TCAD March 2019 419-429*
- El-Zein, A.**, *see* Safieddine, M.H., *TCAD Aug. 2019 1529-1542*
- Ewetz, R.**, and Koh, C., Scalable Construction of Clock Trees With Useful Skew and High Timing Quality; *TCAD June 2019 1161-1174*

## F

- Fang, Z.**, *see* Zhang, C., *TCAD Nov. 2019 2072-2085*  
**Farahmandi, F.**, *see* Nahiyani, A., *TCAD June 2019 1003-1016*  
**Fei, Y.**, *see* Luo, C., *TCAD Dec. 2019 2191-2200*  
**Feld, T.**, and Slomka, F., A Sufficient Response Time Analysis Considering Angular Phases Between Rate-Dependent Tasks; *TCAD Nov. 2019 2008-2021*  
**Feng, F.**, *see* Fu, Y., *TCAD Nov. 2019 2139-2152*  
**Feng, Y.**, *see* Liu, D., *TCAD Dec. 2019 2271-2283*  
**Fernandez, F.V.**, *see* Martins, R., *TCAD June 2019 989-1002*  
**Ferretti, L.**, *see* Zacharopoulos, G., *TCAD April 2019 741-754*  
**Flottes, M.**, *see* Da Silva, M., *TCAD March 2019 538-550*  
**Forte, D.**, *see* Nahiyani, A., *TCAD June 2019 1003-1016*  
**Forte, D.**, *see* Shi, Q., *TCAD Nov. 2019 1981-1994*  
**Fouman, A.**, *see* Moghaddasi, I., *TCAD Aug. 2019 1427-1437*  
**Fu, Y.**, Li, L., Pan, H., Wang, K., Feng, F., Chen, Q., and Zhang, C., Thermal Sensor Placement and Thermal Reconstruction Under Gaussian and Non-Gaussian Sensor Noises for 3-D NoC; *TCAD Nov. 2019 2139-2152*

## G

- Gamatie, A.**, *see* Brisk, P., *TCAD Feb. 2019 197-198*  
**Garg, S.**, *see* Pilato, C., *TCAD May 2019 798-808*  
**Gebregiorgis, A.**, Bishnoi, R., and Tahoori, M.B., A Comprehensive Reliability Analysis Framework for NTC Caches: A System to Device Approach; *TCAD March 2019 439-452*  
**Ghosh, S.**, *see* Brisk, P., *TCAD Feb. 2019 197-198*  
**Giaquinta, E.**, *see* Zacharopoulos, G., *TCAD April 2019 741-754*  
**Grimm, C.**, *see* Zivkovic, C., *TCAD Oct. 2019 1785-1798*  
**Grimmer, A.**, Haselmayr, W., and Wille, R., Automated Dimensioning of Networked Labs-on-Chip; *TCAD July 2019 1216-1225*  
**Grobe, D.**, *see* Herdt, V., *TCAD July 2019 1359-1372*  
**Gu, X.**, *see* Jin, S., *TCAD July 2019 1331-1344*  
**Gu, X.**, *see* Du, Y., *TCAD Oct. 2019 1811-1819*  
**Gu, Y.**, *see* Wang, K., *TCAD Dec. 2019 2321-2329*  
**Guan, Y.**, *see* Li, F., *TCAD Jan. 2019 15-28*  
**Guan, Y.**, *see* Shen, Z., *TCAD Sept. 2019 1635-1647*  
**Guan, Y.**, *see* Chen, R., *TCAD Dec. 2019 2201-2214*  
**Guerra-Pulido, J.O.**, and Perez-Alcazar, P.R., Time-Domain Numerical Simulation of Electronic Circuits and Surface Acoustic Wave Devices Using Their Admittance Parameters; *TCAD March 2019 499-511*  
**Guo, Q.**, *see* Zhou, X., *TCAD Oct. 2019 1858-1871*  
**Guo, X.**, *see* Zhao, Q., *TCAD Nov. 2019 2043-2057*  
**Gupta, S.**, *see* Imani, M., *TCAD April 2019 628-639*  
**Gupta, U.**, Kalla, P., and Rao, V., Boolean Gröbner Basis Reductions on Finite Field Datapath Circuits Using the Unate Cube Set Algebra; *TCAD March 2019 576-588*  
**Gurumani, S.T.**, *see* Campbell, K., *TCAD July 2019 1345-1358*

## H

- Hadjitheophanous, S.**, Neophytou, S.N., and Michael, M.K., Exploiting Shared-Memory to Steer Scalability of Fault Simulation Using Multicore Systems; *TCAD Aug. 2019 1466-1479*  
**Haj Aboutalebi, A.**, Ahn, E.C., Mao, B., Wu, S., and Duan, L., Mitigating and Tolerating Read Disturbance in STT-MRAM-Based Main Memory via Device and Architecture Innovations; *TCAD Dec. 2019 2229-2242*  
**Hakim, N.**, *see* Rangel-Patino, F.E., *TCAD April 2019 733-740*  
**Hamalainen, T.D.**, *see* Lahti, S., *TCAD May 2019 898-911*  
**Han, C.**, Kahng, A.B., Wang, L., and Xu, B., Enhanced Optimal Multi-Row Detailed Placement for Neighbor Diffusion Effect Mitigation in Sub-10 nm VLSI; *TCAD Sept. 2019 1703-1716*  
**Han, J.**, *see* Wang, L., *TCAD Sept. 2019 1771-1784*  
**Han, K.**, *see* Lee, W., *TCAD Sept. 2019 1758-1770*  
**Han, S.**, *see* Hong, J., *TCAD March 2019 453-465*  
**Hand, D.**, *see* Cheng, H., *TCAD July 2019 1305-1316*

- Harutyunyan, G.**, Shoukourian, S., and Zorian, Y., Fault Awareness for Memory BIST Architecture Shaped by Multidimensional Prediction Mechanism; *TCAD March 2019 562-575*  
**Hasan, O.**, *see* Qureshi, A., *TCAD Jan. 2019 177-189*  
**Haselmayr, W.**, *see* Grimmer, A., *TCAD July 2019 1216-1225*  
**He, H.**, *see* Hou, Y., *TCAD Oct. 2019 1820-1830*  
**He, L.**, *see* Campbell, K., *TCAD July 2019 1345-1358*  
**Hellebrand, S.**, *see* Kampmann, M., *TCAD Oct. 2019 1956-1968*  
**Herdt, V.**, Le, H.M., Grobe, D., and Drechsler, R., Verifying SystemC Using Intermediate Verification Language and Stateful Symbolic Simulation; *TCAD July 2019 1359-1372*  
**Ho, F.D.**, *see* Wolfson, S.C., *TCAD March 2019 480-488*  
**Ho, T.**, *see* Bhattacharjee, S., *TCAD May 2019 874-887*  
**Ho, T.**, *see* Zhao, Q., *TCAD Nov. 2019 2043-2057*  
**Hong, J.**, Kim, J., Han, S., and Chung, E., A Locality-Aware Compression Scheme for Highly Reliable Embedded Systems; *TCAD March 2019 453-465*  
**Hong, Q.**, Li, Y., Wang, X., and Zeng, Z., A Versatile Pulse Control Method to Generate Arbitrary Multidirection Multibutterfly Chaotic Attractors; *TCAD Aug. 2019 1480-1492*  
**Horta, N.**, *see* Martins, R., *TCAD June 2019 989-1002*  
**Hou, Y.**, He, H., Shamsi, K., Jin, Y., Wu, D., and Wu, H., On-Chip Analog Trojan Detection Framework for Microprocessor Trustworthiness; *TCAD Oct. 2019 1820-1830*  
**Hsieh, J.**, *see* Lin, H., *TCAD May 2019 860-873*  
**Hsieh, S.**, Wang, Y., Shen, T., Huang, K., Pai, C., Chen, T., and Li, J.C., DR-Scan: Dual-Rail Asynchronous Scan DFT and ATPG; *TCAD Jan. 2019 136-148*  
**Hsiu, P.**, *see* Chen, W., *TCAD May 2019 961-974*  
**Hu, B.**, *see* Du, Y., *TCAD Oct. 2019 1811-1819*  
**Hu, J.**, *see* Sengupta, D., *TCAD Jan. 2019 70-83*  
**Hu, J.**, *see* Li, F., *TCAD Jan. 2019 15-28*  
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## U

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**Xiao, S.**, *see* Wen, S., *TCAD June 2019 1084-1094*  
**Xie, C.**, *see* Zhang, M., *TCAD Dec. 2019 2312-2320*  
**Xie, G.**, Zeng, G., Kurachi, R., Takada, H., Li, Z., Li, R., and Li, K., WCRT Analysis and Evaluation for Sporadic Message-Processing Tasks in Multi-core Automotive Gateways; *TCAD Feb. 2019 281-294*  
**Xie, Y.**, *see* Cheng, M., *TCAD May 2019 834-847*  
**Xie, Y.**, and Srivastava, A., Anti-SAT: Mitigating SAT Attack on Logic Locking; *TCAD Feb. 2019 199-207*  
**Xie, Y.**, *see* Dai, G., *TCAD April 2019 640-653*  
**Xu, B.**, *see* Han, C., *TCAD Sept. 2019 1703-1716*  
**Xu, G.**, *see* Cao, K., *TCAD Oct. 2019 1799-1810*  
**Xu, J.**, *see* Duong, L.H.K., *TCAD Jan. 2019 43-56*  
**Xu, J.**, *see* Tian, Z., *TCAD July 2019 1203-1215*  
**Xu, Q.**, *see* Chen, S., *TCAD May 2019 949-960*  
**Xu, W.**, *see* Xu, X., *TCAD May 2019 785-797*  
**Xu, X.**, Lin, F., Xu, W., Yao, X., Shi, Y., Zeng, D., and Hu, Y., MDA: A Reconfigurable Memristor-Based Distance Accelerator for Time Series Mining on Data Centers; *TCAD May 2019 785-797*  
**Xu, X.**, *see* Li, M., *TCAD Sept. 2019 1585-1598*  
**Xu, Y.**, Chen, Z., Li, F., and Meng, J., A Granular Resampling Method and Adaptive Speculative Mechanism-Based Energy-Efficient Architecture for Multiclass Heartbeat Classification; *TCAD Nov. 2019 2172-2176*  
**Xue, C.J.**, *see* Li, F., *TCAD Jan. 2019 15-28*

## Y

- Yamashita, S.**, *see* Liu, C., *TCAD Dec. 2019 2284-2297*  
**Yan, G.**, *see* Lu, H., *TCAD Aug. 2019 1438-1451*  
**Yan, J.**, Layer Assignment of Buses and Nets With Via-Count Constraint in High-Speed PCB Designs; *TCAD March 2019 512-525*  
**Yan, J.**, Single-Layer GNR Routing for Minimization of Bending Delay; *TCAD Nov. 2019 2099-2112*  
**Yan, X.**, *see* Huang, K., *TCAD Sept. 2019 1744-1757*  
**Yan, Z.**, *see* Wen, S., *TCAD June 2019 1084-1094*  
**Yang, H.**, *see* Cheng, M., *TCAD May 2019 834-847*  
**Yang, H.**, *see* Dai, G., *TCAD April 2019 640-653*  
**Yang, H.**, Su, J., Zou, Y., Ma, Y., Yu, B., and Young, E.F.Y., Layout Hotspot Detection With Feature Tensor Generation and Deep Biased Learning; *TCAD June 2019 1175-1187*  
**Yang, H.**, *see* Zhao, Q., *TCAD Nov. 2019 2043-2057*  
**Yang, J.**, Wang, X., Zhou, Q., Wang, Z., Li, H., Chen, Y., and Zhao, W., Exploiting Spin-Orbit Torque Devices As Reconfigurable Logic for Circuit Obfuscation; *TCAD Jan. 2019 57-69*  
**Yang, J.**, *see* Wang, Y., *TCAD Feb. 2019 234-244*  
**Yang, J.**, *see* Kang, Y., *TCAD Nov. 2019 2167-2171*  
**Yang, J.**, *see* Chung, J., *TCAD Nov. 2019 2032-2042*  
**Yang, L.**, *see* Liu, W., *TCAD Jan. 2019 1-14*  
**Yang, L.**, *see* Campbell, K., *TCAD July 2019 1345-1358*  
**Yang, L.**, *see* Jiang, W., *TCAD Aug. 2019 1515-1528*  
**Yang, M.**, *see* Chen, Y., *TCAD Jan. 2019 29-42*  
**Yang, P.**, *see* Duong, L.H.K., *TCAD Jan. 2019 43-56*  
**Yang, P.**, *see* Tian, Z., *TCAD July 2019 1203-1215*  
**Yang, T.**, Wei, Y., Tu, Z., Zeng, H., Kinsy, M.A., Zheng, N., and Ren, P., Design Space Exploration of Neural Network Activation Function Circuits; *TCAD Oct. 2019 1974-1978*  
**Yang, W.**, *see* Mao, B., *TCAD June 2019 1017-1027*  
**Yang, X.**, *see* Wang, Y., *TCAD April 2019 617-627*  
**Yang, Y.**, *see* Wen, S., *TCAD June 2019 1084-1094*  
**Yang, Y.**, *see* Zhu, W., *TCAD July 2019 1278-1290*  
**Yang, Y.**, *see* Safaei, A., *TCAD Nov. 2019 2127-2138*  
**Yang, Z.**, Serafy, C., Lu, T., and Srivastava, A., Enhanced Phase-Driven  $Q$ -Learning-Based DRM for Multicore Processors; *TCAD Nov. 2019 2022-2031*  
**Yao, H.**, *see* Zhao, Q., *TCAD Nov. 2019 2043-2057*  
**Yao, X.**, *see* Xu, X., *TCAD May 2019 785-797*

- Yesil, A.**, Babacan, Y., and Kacar, F., Design and Experimental Evolution of Memristor With Only One VDTA and One Capacitor; *TCAD June 2019 1123-1132*  
**Yi, J.**, *see* Liu, W., *TCAD Jan. 2019 1-14*  
**Yi, M.**, Bian, J., Ni, T., Jiang, C., Chang, H., and Liang, H., A Pulse Shrinking-Based Test Solution for Prebond Through Silicon via in 3-D ICs; *TCAD April 2019 755-766*  
**Yin, S.**, *see* Huang, H., *TCAD Feb. 2019 208-219*  
**Yin, S.**, Tang, S., Lin, X., Ouyang, P., Tu, F., Liu, L., and Wei, S., A High Throughput Acceleration for Hybrid Neural Networks With Efficient Resource Management on FPGA; *TCAD April 2019 678-691*  
**Yin, S.**, *see* Liu, L., *TCAD July 2019 1265-1277*  
**Yin, S.**, *see* Wang, L., *TCAD Sept. 2019 1771-1784*  
**Yin, S.**, *see* Liu, D., *TCAD Dec. 2019 2271-2283*  
**Young, E.F.Y.**, *see* Yang, H., *TCAD June 2019 1175-1187*  
**Young, E.F.Y.**, *see* Kuang, J., *TCAD Sept. 2019 1731-1743*  
**Yu, B.**, *see* Chen, S., *TCAD May 2019 949-960*  
**Yu, B.**, *see* Yang, H., *TCAD June 2019 1175-1187*  
**Yu, B.**, *see* Liu, D., *TCAD June 2019 1147-1160*  
**Yu, B.**, *see* Li, M., *TCAD Aug. 2019 1399-1412*  
**Yu, B.**, *see* Li, M., *TCAD Sept. 2019 1585-1598*  
**Yu, B.**, *see* Ma, Y., *TCAD Dec. 2019 2298-2311*  
**Yu, C.**, and Ciesielski, M., Formal Analysis of Galois Field Arithmetic Circuits-Parallel Verification and Reverse Engineering; *TCAD Feb. 2019 354-365*  
**Yu, M.**, *see* Huang, K., *TCAD Sept. 2019 1744-1757*  
**Yuan, B.**, *see* Li, Z., *TCAD Aug. 2019 1543-1556*  
**Yuan, J.**, Chen, J., Wang, L., Zhou, X., Xia, Y., and Hu, J., ARBSA: Adaptive Range-Based Simulated Annealing for FPGA Placement; *TCAD Dec. 2019 2330-2342*  
**Yuan, Y.**, *see* Wang, H., *TCAD Nov. 2019 2058-2071*

## Z

- Zacharopoulos, G.**, Ferretti, L., Giaquinta, E., Ansaloni, G., and Pozzi, L., RegionSeeker: Automatically Identifying and Selecting Accelerators From Application Source Code; *TCAD April 2019 741-754*  
**Zahedi, M.**, *see* Tabatabaei-Nikkhah, S., *TCAD Aug. 2019 1452-1465*  
**Zaraket, F.A.**, *see* Safieddine, M.H., *TCAD Aug. 2019 1529-1542*  
**Zawada, J.**, *see* Moghaddam, E., *TCAD June 2019 1028-1041*  
**Zeng, D.**, *see* Xu, X., *TCAD May 2019 785-797*  
**Zeng, G.**, *see* Xie, G., *TCAD Feb. 2019 281-294*  
**Zeng, H.**, *see* Yang, T., *TCAD Oct. 2019 1974-1978*  
**Zeng, X.**, *see* Tao, J., *TCAD Aug. 2019 1385-1398*  
**Zeng, Z.**, *see* Wen, S., *TCAD June 2019 1084-1094*  
**Zeng, Z.**, *see* Hong, Q., *TCAD Aug. 2019 1480-1492*  
**Zhan, X.**, Li, P., and Sanchez-Sinencio, E., Taming the Stability-Constrained Performance Optimization Challenge of Distributed On-Chip Voltage Regulation; *TCAD Aug. 2019 1571-1584*  
**Zhang, C.**, Sun, G., Fang, Z., Zhou, P., Pan, P., and Cong, J., Caffeine: Toward Uniformed Representation and Acceleration for Deep Convolutional Neural Networks; *TCAD Nov. 2019 2072-2085*  
**Zhang, C.**, *see* Fu, Y., *TCAD Nov. 2019 2139-2152*  
**Zhang, C.**, *see* Wang, H., *TCAD Nov. 2019 2058-2071*  
**Zhang, C.**, *see* Chen, R., *TCAD Dec. 2019 2201-2214*  
**Zhang, F.**, Wang, C., Lu, F., Chen, Q., Li, C., Wang, X.S., Li, D., and Wang, A., A Full-Chip ESD Protection Circuit Simulation and Fast Dynamic Checking Method Using SPICE and ESD Behavior Models; *TCAD March 2019 489-498*  
**Zhang, G.L.**, Li, B., Shi, Y., Hu, J., and Schlichtmann, U., EffiTest2: Efficient Delay Test and Prediction for Post-Silicon Clock Skew Configuration Under Process Variations; *TCAD April 2019 705-718*  
**Zhang, L.**, *see* Zhou, X., *TCAD Oct. 2019 1858-1871*  
**Zhang, M.**, *see* Wang, Y., *TCAD April 2019 617-627*  
**Zhang, M.**, *see* Cheng, H., *TCAD July 2019 1305-1316*  
**Zhang, M.**, Wu, F., Du, Y., Liu, W., and Xie, C., Pair-Bit Errors Aware LDPC Decoding in MLC NAND Flash Memory; *TCAD Dec. 2019 2312-2320*  
**Zhang, R.**, *see* Cao, X., *TCAD June 2019 1109-1122*  
**Zhang, S.**, *see* Zhou, X., *TCAD Oct. 2019 1858-1871*

- Zhang, W.**, Cao, Q., and Lu, Z., Bit-Flipping Schemes Upon MLC Flash: Investigation, Implementation, and Evaluation; *TCAD April 2019 780-784*
- Zhang, W.**, see Lin, Z., *TCAD Sept. 2019 1661-1674*
- Zhang, X.**, see Huang, K., *TCAD Sept. 2019 1744-1757*
- Zhang, Y.**, see Li, Z., *TCAD July 2019 1251-1264*
- Zhang, Z.**, see Jin, S., *TCAD July 2019 1331-1344*
- Zhao, J.**, see Dai, G., *TCAD April 2019 640-653*
- Zhao, J.**, see Zhao, Q., *TCAD Nov. 2019 2043-2057*
- Zhao, J.**, see Zhao, Q., *TCAD Nov. 2019 2043-2057*
- Zhao, M.**, see Li, F., *TCAD Jan. 2019 15-28*
- Zhao, Q.**, Sun, W., Zhao, J., Zhao, J., Yao, H., Ho, T., Guo, X., Yang, H., and Liu, Y., Design Methodology for TFT-Based Pseudo-CMOS Logic Array With Multilayer Interconnection Architecture and Optimization Algorithms; *TCAD Nov. 2019 2043-2057*
- Zhao, W.**, see Yang, J., *TCAD Jan. 2019 57-69*
- Zhao, Z.**, see Li, M., *TCAD Aug. 2019 1399-1412*
- Zheng, D.**, see Huang, K., *TCAD Sept. 2019 1744-1757*
- Zheng, N.**, see Yang, T., *TCAD Oct. 2019 1974-1978*
- Zhou, D.**, see Tao, J., *TCAD Aug. 2019 1385-1398*
- Zhou, J.**, see Mao, B., *TCAD June 2019 1017-1027*
- Zhou, J.**, see Cao, K., *TCAD July 2019 1189-1202*
- Zhou, J.**, see Li, L., *TCAD Sept. 2019 1599-1610*
- Zhou, J.**, see Cao, K., *TCAD Oct. 2019 1799-1810*
- Zhou, J.**, Sun, J., Zhou, X., Wei, T., Chen, M., Hu, S., and Hu, X.S., Resource Management for Improving Soft-Error and Lifetime Reliability of Real-Time MPSoCs; *TCAD Dec. 2019 2215-2228*
- Zhou, P.**, see Li, Y., *TCAD Oct. 2019 1914-1927*
- Zhou, P.**, see Zhang, C., *TCAD Nov. 2019 2072-2085*
- Zhou, Q.**, see Yang, J., *TCAD Jan. 2019 57-69*
- Zhou, Q.**, see Wang, X., *TCAD Oct. 2019 1844-1857*
- Zhou, S.**, see Liu, D., *TCAD Dec. 2019 2271-2283*
- Zhou, T.**, see Wang, K., *TCAD Dec. 2019 2321-2329*
- Zhou, X.**, Chen, Y., Du, Z., Zhang, S., Zhang, L., Lan, H., Liu, S., Li, L., Guo, Q., and Chen, T., Addressing Sparsity in Deep Neural Networks; *TCAD Oct. 2019 1858-1871*
- Zhou, X.**, see Zhou, J., *TCAD Dec. 2019 2215-2228*
- Zhou, X.**, see Yuan, J., *TCAD Dec. 2019 2330-2342*
- Zhu, W.**, see Liu, L., *TCAD July 2019 1265-1277*
- Zhu, W.**, Dong, G., and Yang, Y., Thermal-Aware Modeling and Analysis for a Power Distribution Network Including Through-Silicon-Vias in 3-D ICs; *TCAD July 2019 1278-1290*
- Zhu, Z.**, see Cheng, M., *TCAD May 2019 834-847*
- Zhuge, Q.**, see Jiang, W., *TCAD Aug. 2019 1515-1528*
- Zhuo, C.**, Unda, K., Shi, Y., and Shih, W., From Layout to System: Early Stage Power Delivery and Architecture Co-Exploration; *TCAD July 2019 1291-1304*
- Zhuo, C.**, see Li, Y., *TCAD Oct. 2019 1914-1927*
- Zivkovic, C.**, Grimm, C., Olbrich, M., Scharf, O., and Barke, E., Hierarchical Verification of AMS Systems With Affine Arithmetic Decision Diagrams; *TCAD Oct. 2019 1785-1798*
- Zorian, Y.**, see Harutyunyan, G., *TCAD March 2019 562-575*
- Zou, Y.**, see Yang, H., *TCAD June 2019 1175-1187*
- Zulehner, A.**, and Wille, R., Advanced Simulation of Quantum Computations; *TCAD May 2019 848-859*
- Zulehner, A.**, Paler, A., and Wille, R., An Efficient Methodology for Mapping Quantum Circuits to the IBM QX Architectures; *TCAD July 2019 1226-1236*
- Formal Probabilistic Analysis of Low Latency Approximate Adders. *Qureshi, A., +, TCAD Jan. 2019 177-189*
- HEIF: Highly Efficient Stochastic Computing-Based Inference Framework for Deep Neural Networks. *Li, Z., +, TCAD Aug. 2019 1543-1556*
- New 3-D CMOS Fabric With Stacked Horizontal Nanowires. *Macha, N.K., +, TCAD Sept. 2019 1625-1634*
- Aging**
- A Non-Minimal Routing Algorithm for Aging Mitigation in 2D-Mesh NoCs. *Wang, L., +, TCAD July 2019 1373-1377*
- Algebra**
- Boolean Gröbner Basis Reductions on Finite Field Datapath Circuits Using the Unate Cube Set Algebra. *Gupta, U., +, TCAD March 2019 576-588*
- Analog circuits**
- Graph-Constrained Sparse Performance Modeling for Analog Circuit Optimization via SDP Relaxation. *Tao, J., +, TCAD Aug. 2019 1385-1398*
- Analog multipliers**
- An Analog Neural Network Computing Engine Using CMOS-Compatible Charge-Trap-Transistor (CTT). *Du, Y., +, TCAD Oct. 2019 1811-1819*
- Application specific integrated circuits**
- Design Space Exploration of Neural Network Activation Function Circuits. *Yang, T., +, TCAD Oct. 2019 1974-1978*
- RegionSeeker: Automatically Identifying and Selecting Accelerators From Application Source Code. *Zacharopoulos, G., +, TCAD April 2019 741-754*
- TIME: A Training-in-Memory Architecture for RRAM-Based Deep Neural Networks. *Cheng, M., +, TCAD May 2019 834-847*
- Approximation theory**
- A QoS-QoR Aware CNN Accelerator Design Approach. *Wang, Y., +, TCAD Nov. 2019 1995-2007*
- Dynamic Approximation of JPEG Hardware. *Sharmin Snigdha, F., +, TCAD Feb. 2019 295-308*
- Formal Probabilistic Analysis of Low Latency Approximate Adders. *Qureshi, A., +, TCAD Jan. 2019 177-189*
- Optimization of Multi-Target Sample Preparation On-Demand With Digital Microfluidic Biochips. *Poddar, S., +, TCAD Feb. 2019 253-266*
- Asynchronous circuits**
- DR-Scan: Dual-Rail Asynchronous Scan DfT and ATPG. *Hsieh, S., +, TCAD Jan. 2019 136-148*
- Automatic test pattern generation**
- Built-In Test for Hidden Delay Faults. *Kampmann, M., +, TCAD Oct. 2019 1956-1968*
- Diagnostic Test Generation That Addresses Diagnostic Holes. *Pomeranz, I., TCAD Feb. 2019 335-344*
- DR-Scan: Dual-Rail Asynchronous Scan DfT and ATPG. *Hsieh, S., +, TCAD Jan. 2019 136-148*
- Incremental SAT-Based Accurate Auto-Correction of Sequential Circuits Through Automatic Test Pattern Generation. *Alizadeh, B., +, TCAD Feb. 2019 245-252*
- LFSR-Based Test Generation for Path Delay Faults. *Pomeranz, I., TCAD Feb. 2019 345-353*
- On-Chip Self-Test Methodology With All Deterministic Compressed Test Patterns Recorded in Scan Chains. *Lee, K., +, TCAD Feb. 2019 309-321*
- Skewed-Load Tests for Transition and Stuck-at Faults. *Pomeranz, I., TCAD Oct. 2019 1969-1973*
- Automotive electronics**
- WCRT Analysis and Evaluation for Sporadic Message-Processing Tasks in Multicore Automotive Gateways. *Xie, G., +, TCAD Feb. 2019 281-294*
- Automotive engineering**
- A Sufficient Response Time Analysis Considering Angular Phases Between Rate-Dependent Tasks. *Feld, T., +, TCAD Nov. 2019 2008-2021*
- Autoregressive moving average processes**
- A Cross-Layer Framework for Temporal Power and Supply Noise Prediction. *Li, Y., +, TCAD Oct. 2019 1914-1927*

## SUBJECT INDEX

## A

## Adders

- An Analytical Approach for Error PMF Characterization in Approximate Circuits. *Sengupta, D., +, TCAD Jan. 2019 70-83*
- Cross-Layer Optimization for High Speed Adders: A Pareto Driven Machine Learning Approach. *Ma, Y., +, TCAD Dec. 2019 2298-2311*

+ Check author entry for coauthors

## B

## Backpropagation

- Adjusting Learning Rate of Memristor-Based Multilayer Neural Networks via Fuzzy Method. *Wen, S., +, TCAD June 2019 1084-1094*

TIME: A Training-in-Memory Architecture for RRAM-Based Deep Neural Networks. *Cheng, M.*, +, *TCAD May 2019 834-847*

#### Band-pass filters

An Efficient Extrapolation Method of Band-Limited S-Parameters for Extracting Causal Impulse Responses. *Cho, J.*, +, *TCAD Nov. 2019 2086-2098*

#### Band-stop filters

An Efficient Extrapolation Method of Band-Limited S-Parameters for Extracting Causal Impulse Responses. *Cho, J.*, +, *TCAD Nov. 2019 2086-2098*

#### Big Data

Overcome the GC-Induced Performance Variability in SSD-Based RAID5 With Request Redirection. *Wu, S.*, +, *TCAD May 2019 822-833*

#### Binary decision diagrams

Boolean Gröbner Basis Reductions on Finite Field Datapath Circuits Using the Unate Cube Set Algebra. *Gupta, U.*, +, *TCAD March 2019 576-588*

#### Biochemistry

Efficient Generation of Dilution Gradients With Digital Microfluidic Biochips. *Bhattacharjee, S.*, +, *TCAD May 2019 874-887*

Optimization of Multi-Target Sample Preparation On-Demand With Digital Microfluidic Biochips. *Poddar, S.*, +, *TCAD Feb. 2019 253-266*

Reliability Analysis of Mixture Preparation Using Digital Microfluidic Biochips. *Singla, A.*, +, *TCAD April 2019 654-667*

#### Biochips

Synthesis of Reconfigurable Flow-Based Biochips for Scalable Single-Cell Screening. *Ibrahim, M.*, +, *TCAD Dec. 2019 2255-2270*

#### Biocomputing

Simplifying Deep Neural Networks for FPGA-Like Neuromorphic Systems. *Chung, J.*, +, *TCAD Nov. 2019 2032-2042*

#### Biological techniques

Error-Oblivious Sample Preparation With Digital Microfluidic Lab-on-Chip. *Poddar, S.*, +, *TCAD Oct. 2019 1886-1899*

Reliability Analysis of Mixture Preparation Using Digital Microfluidic Biochips. *Singla, A.*, +, *TCAD April 2019 654-667*

Security Assessment of Micro-Electrode-Dot-Array Biochips. *Shayan, M.*, +, *TCAD Oct. 2019 1831-1843*

#### Biomedical equipment

Efficient Generation of Dilution Gradients With Digital Microfluidic Biochips. *Bhattacharjee, S.*, +, *TCAD May 2019 874-887*

#### BioMEMS

Automated Dimensioning of Networked Labs-on-Chip. *Grimmer, A.*, +, *TCAD July 2019 1216-1225*

Efficient Generation of Dilution Gradients With Digital Microfluidic Biochips. *Bhattacharjee, S.*, +, *TCAD May 2019 874-887*

Error-Oblivious Sample Preparation With Digital Microfluidic Lab-on-Chip. *Poddar, S.*, +, *TCAD Oct. 2019 1886-1899*

Optimization of Multi-Target Sample Preparation On-Demand With Digital Microfluidic Biochips. *Poddar, S.*, +, *TCAD Feb. 2019 253-266*

Reliability Analysis of Mixture Preparation Using Digital Microfluidic Biochips. *Singla, A.*, +, *TCAD April 2019 654-667*

Security Assessment of Micro-Electrode-Dot-Array Biochips. *Shayan, M.*, +, *TCAD Oct. 2019 1831-1843*

Synthesis of a Cyberphysical Hybrid Microfluidic Platform for Single-Cell Analysis. *Ibrahim, M.*, +, *TCAD July 2019 1237-1250*

Toward Secure and Trustworthy Cyberphysical Microfluidic Biochips. *Tang, J.*, +, *TCAD April 2019 589-603*

#### Boolean algebra

Boolean Gröbner Basis Reductions on Finite Field Datapath Circuits Using the Unate Cube Set Algebra. *Gupta, U.*, +, *TCAD March 2019 576-588*

#### Boolean functions

An Efficient SRAM-Based Reconfigurable Architecture for Embedded Processors. *Tamimi, S.*, +, *TCAD March 2019 466-479*

Boolean Gröbner Basis Reductions on Finite Field Datapath Circuits Using the Unate Cube Set Algebra. *Gupta, U.*, +, *TCAD March 2019 576-588*

LUT-Based Hierarchical Reversible Logic Synthesis. *Soeken, M.*, +, *TCAD Sept. 2019 1675-1688*

Threshold Function Identification by Redundancy Removal and Comprehensive Weight Assignments. *Liu, C.*, +, *TCAD Dec. 2019 2284-2297*

#### Boundary scan testing

IC Protection Against JTAG-Based Attacks. *Ren, X.*, +, *TCAD Jan. 2019 149-162*

#### Built-in self test

An Efficient BIRA Utilizing Characteristics of Spare Pivot Faults. *Cho, K.*, +, *TCAD March 2019 551-561*

Built-In Test for Hidden Delay Faults. *Kampmann, M.*, +, *TCAD Oct. 2019 1956-1968*

Fault Awareness for Memory BIST Architecture Shaped by Multidimensional Prediction Mechanism. *Harutyunyan, G.*, +, *TCAD March 2019 562-575*

Logic BIST With Capture-Per-Clock Hybrid Test Points. *Moghaddam, E.*, +, *TCAD June 2019 1028-1041*

On-Chip Self-Test Methodology With All Deterministic Compressed Test Patterns Recorded in Scan Chains. *Lee, K.*, +, *TCAD Feb. 2019 309-321*

Verification at RTL Using Separation of Design Concerns. *Safieddine, M.H.*, +, *TCAD Aug. 2019 1529-1542*

## C

#### C language

RegionSeeker: Automatically Identifying and Selecting Accelerators From Application Source Code. *Zacharopoulos, G.*, +, *TCAD April 2019 741-754*

#### C++ language

Verifying SystemC Using Intermediate Verification Language and Stateful Symbolic Simulation. *Herdt, V.*, +, *TCAD July 2019 1359-1372*

#### Cache storage

A Comprehensive Reliability Analysis Framework for NTC Caches: A System to Device Approach. *Gebregiorgis, A.*, +, *TCAD March 2019 439-452*

A Locality-Aware Compression Scheme for Highly Reliable Embedded Systems. *Hong, J.*, +, *TCAD March 2019 453-465*

Alleviating Hot Data Write Back Effect for Shingled Magnetic Recording Storage Systems. *Ma, C.*, +, *TCAD Dec. 2019 2243-2254*

An Efficient LSM-Tree-Based SQLite-Like Database Engine for Mobile Devices. *Shen, Z.*, +, *TCAD Sept. 2019 1635-1647*

Directed Test Generation for Validation of Cache Coherence Protocols. *Lyu, Y.*, +, *TCAD Jan. 2019 163-176*

NVQuery: Efficient Query Processing in Nonvolatile Memory. *Imani, M.*, +, *TCAD April 2019 628-639*

OCMAS: Online Page Clustering for Multibank Scratchpad Memory. *Chang, D.*, +, *TCAD Feb. 2019 220-233*

Revive Bad Flash-Memory Pages by HLC Scheme. *Lin, H.*, +, *TCAD May 2019 860-873*

Vulnerability-Aware Energy Optimization for Reconfigurable Caches in Multitasking Systems. *Huang, Y.*, +, *TCAD May 2019 809-821*

#### CAD

Fixed-Parameter Tractable Algorithms for Optimal Layout Decomposition and Beyond. *Kuang, J.*, +, *TCAD Sept. 2019 1731-1743*

#### Cancer

Synthesis of a Cyberphysical Hybrid Microfluidic Platform for Single-Cell Analysis. *Ibrahim, M.*, +, *TCAD July 2019 1237-1250*

#### Capacitors

Design and Experimental Evolution of Memristor With Only One VDTA and One Capacitor. *Yesil, A.*, +, *TCAD June 2019 1123-1132*

#### Cellular biophysics

Automated Dimensioning of Networked Labs-on-Chip. *Grimmer, A.*, +, *TCAD July 2019 1216-1225*

Synthesis of a Cyberphysical Hybrid Microfluidic Platform for Single-Cell Analysis. *Ibrahim, M.*, +, *TCAD July 2019 1237-1250*

#### Chaos

A Versatile Pulse Control Method to Generate Arbitrary Multidirection Multibutterfly Chaotic Attractors. *Hong, Q.*, +, *TCAD Aug. 2019 1480-1492*

#### Chebyshev filters

An Efficient Extrapolation Method of Band-Limited S-Parameters for Extracting Causal Impulse Responses. *Cho, J.*, +, *TCAD Nov. 2019 2086-2098*

#### Checkpointing

Checkpointing-Aware Loop Tiling for Energy Harvesting Powered Nonvolatile Processors. *Li, F.*, +, *TCAD Jan. 2019 15-28*

**Ciphers**

Comprehensive Side-Channel Power Analysis of XTS-AES. *Luo, C., +, TCAD Dec. 2019 2191-2200*

**Circuit CAD**

Computer-Aided Design of a Switchable True Time Delay (TTD) Line With Shunt Open-Stubs. *Mandal, J., +, TCAD March 2019 430-438*

Two-Step RF IC Block Synthesis With Preoptimized Inductors and Full Layout Generation In-the-Loop. *Martins, R., +, TCAD June 2019 989-1002*

**Circuit faults**

Invisible-Scan: A Design-for-Testability Approach for Functional Test Sequences. *Pomeranz, I., TCAD Dec. 2019 2357-2365*

Predicting  $X$ -Sensitivity of Circuit-Inputs on Test-Coverage: A Machine-Learning Approach. *Pradhan, M., +, TCAD Dec. 2019 2343-2356*

**Circuit layout CAD**

RePIAce: Advancing Solution Quality and Routability Validation in Global Placement. *Cheng, C., +, TCAD Sept. 2019 1717-1730*

**Circuit optimization**

A Design-for-Test Solution Based on Dedicated Test Layers and Test Scheduling for Monolithic 3-D Integrated Circuits. *Koneru, A., +, TCAD Oct. 2019 1942-1955*

Adaptive 3D-IC TSV Fault Tolerance Structure Generation. *Chen, S., +, TCAD May 2019 949-960*

Automatic Retiming of Two-Phase Latch-Based Resilient Circuits. *Cheng, H., +, TCAD July 2019 1305-1316*

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From Layout to System: Early Stage Power Delivery and Architecture Co-Exploration. *Zhuo, C., +, TCAD July 2019 1291-1304*

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Scalable Construction of Clock Trees With Useful Skew and High Timing Quality. *Ewetz, R., +, TCAD June 2019 1161-1174*

Simultaneous Area and Latency Optimization for Stochastic Circuits by D Flip-Flop Insertion. *Li, Z., +, TCAD July 2019 1251-1264*

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Vulnerability-Aware Energy Optimization for Reconfigurable Caches in Multitasking Systems. *Huang, Y., +, TCAD May 2019 809-821*

**Circuit simulation**

A Full-Chip ESD Protection Circuit Simulation and Fast Dynamic Checking Method Using SPICE and ESD Behavior Models. *Zhang, F., +, TCAD March 2019 489-498*

From Layout to System: Early Stage Power Delivery and Architecture Co-Exploration. *Zhuo, C., +, TCAD July 2019 1291-1304*

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**Circuit testing**

Diagnostic Test Generation That Addresses Diagnostic Holes. *Pomeranz, I., TCAD Feb. 2019 335-344*

**Circuit topology**

ARBASA: Adaptive Range-Based Simulated Annealing for FPGA Placement. *Yuan, J., +, TCAD Dec. 2019 2330-2342*

**Client-server systems**

A Message-Passing Microcoded Synchronization for Distributed Shared Memory Architectures. *Tasoulas, Z., +, TCAD May 2019 975-979*

**Clocks**

EffiTest2: Efficient Delay Test and Prediction for Post-Silicon Clock Skew Configuration Under Process Variations. *Zhang, G.L., +, TCAD April 2019 705-718*

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**Cloud computing**

Optimal Performance-Aware Cooling on Enterprise Servers. *Chan, C.S., +, TCAD Sept. 2019 1689-1702*

**CMOS analog integrated circuits**

An Analog Neural Network Computing Engine Using CMOS-Compatible Charge-Trap-Transistor (CTT). *Du, Y., +, TCAD Oct. 2019 1811-1819*

**CMOS integrated circuits**

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Computer-Aided Design of a Switchable True Time Delay (TTD) Line With Shunt Open-Stubs. *Mandal, J., +, TCAD March 2019 430-438*

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**Combinational circuits**

A Layout-Based Soft Error Vulnerability Estimation Approach for Combinational Circuits Considering Single Event Multiple Transients (SEMTs). *Cao, X., +, TCAD June 2019 1109-1122*

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LUT-Based Hierarchical Reversible Logic Synthesis. *Soeken, M., +, TCAD Sept. 2019 1675-1688*

**Compaction**

Invisible-Scan: A Design-for-Testability Approach for Functional Test Sequences. *Pomeranz, I., TCAD Dec. 2019 2357-2365*

Predicting  $X$ -Sensitivity of Circuit-Inputs on Test-Coverage: A Machine-Learning Approach. *Pradhan, M., +, TCAD Dec. 2019 2343-2356*

**Complexity theory**

Multi-Pair Active Shielding for Security IC Protection. *Wang, K., +, TCAD Dec. 2019 2321-2329*

**Computability**

Calculated Risks: Quantifying Timing Error Probability With Extended Static Timing Analysis. *Murray, K.E., +, TCAD April 2019 719-732*

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Logic Synthesis for Interpolant Circuit Compaction. *Cabodi, G., +, TCAD Feb. 2019 380-384*

**Computational complexity**

HEIF: Highly Efficient Stochastic Computing-Based Inference Framework for Deep Neural Networks. *Li, Z., +, TCAD Aug. 2019 1543-1556*

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**Computer bugs**

Predicting  $X$ -Sensitivity of Circuit-Inputs on Test-Coverage: A Machine-Learning Approach. *Pradhan, M., +, TCAD Dec. 2019 2343-2356*

**Computer centers**

MDA: A Reconfigurable Memristor-Based Distance Accelerator for Time Series Mining on Data Centers. *Xu, X., +, TCAD May 2019 785-797*

Optimal Performance-Aware Cooling on Enterprise Servers. *Chan, C.S., +, TCAD Sept. 2019 1689-1702*

**Computer crashes**

DCR: Deterministic Crash Recovery for NAND Flash Storage Systems. *Chen, R., +, TCAD Dec. 2019 2201-2214*

**Computer games**

A User-Centric CPU-GPU Governing Framework for 3-D Mobile Games. *Chen, W., +, TCAD May 2019 961-974*

**Computer graphic equipment**

Hardware-Assisted Cross-Generation Prediction of GPUs Under Design. *O'Neal, K., +, TCAD June 2019 1133-1146*

**Computer network management**

Enhanced Phase-Driven  $Q$ -Learning-Based DRM for Multicore Processors. *Yang, Z., +, TCAD Nov. 2019 2022-2031*

**Computer network reliability**

QoS-Adaptive Approximate Real-Time Computation for Mobility-Aware IoT Lifetime Optimization. *Cao, K., +, TCAD Oct. 2019 1799-1810*

**Concurrency control**

A Message-Passing Microcoded Synchronization for Distributed Shared Memory Architectures. *Tasoulas, Z., +, TCAD May 2019 975-979*

**Consumer electronics**

Low Cost Functional Obfuscation of Reusable IP Cores Used in CE Hardware Through Robust Locking. *Sengupta, A., +, TCAD April 2019 604-616*

**Content-addressable storage**

An Efficient BIRA Utilizing Characteristics of Spare Pivot Faults. *Cho, K., +, TCAD March 2019 551-561*

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**Control system synthesis**

Taming the Stability-Constrained Performance Optimization Challenge of Distributed On-Chip Voltage Regulation. *Zhan, X., +, TCAD Aug. 2019 1571-1584*

**Controller area networks**

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**Convex programming**

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**Convolutional neural nets**

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**Cooling**

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**Cooperative communication**

Game Theoretic Feedback Control for Reliability Enhancement of Ethernet-Based Networked Systems. *Li, L., +, TCAD Sept. 2019 1599-1610*

**Cost reduction**

Revive Bad Flash-Memory Pages by HLC Scheme. *Lin, H., +, TCAD May 2019 860-873*

TIME: A Training-in-Memory Architecture for RRAM-Based Deep Neural Networks. *Cheng, M., +, TCAD May 2019 834-847*

**Coupled transmission lines**

An Efficient Extrapolation Method of Band-Limited S-Parameters for Extracting Causal Impulse Responses. *Cho, J., +, TCAD Nov. 2019 2086-2098*

**Cryptography**

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Preventing Scan Attacks on Secure Circuits Through Scan Chain Encryption. *Da Silva, M., +, TCAD March 2019 538-550*

**D****Data analysis**

Overcome the GC-Induced Performance Variability in SSD-Based RAID5 With Request Redirection. *Wu, S., +, TCAD May 2019 822-833*

**Data compression**

A Locality-Aware Compression Scheme for Highly Reliable Embedded Systems. *Hong, J., +, TCAD March 2019 453-465*

Design and Analysis of a Neural Network Inference Engine Based on Adaptive Weight Compression. *Ko, J.H., +, TCAD Jan. 2019 109-121*

Dynamic Approximation of JPEG Hardware. *Sharmin Snigdha, F., +, TCAD Feb. 2019 295-308*

LFSR-Based Test Generation for Path Delay Faults. *Pomeranz, I., TCAD Feb. 2019 345-353*

Preventing Scan Attacks on Secure Circuits Through Scan Chain Encryption. *Da Silva, M., +, TCAD March 2019 538-550*

**Data flow graphs**

ACHILLES: Accuracy-Aware High-Level Synthesis Considering Online Quality Management. *Tabatabaei-Nikkah, S., +, TCAD Aug. 2019 1452-1465*

An Energy-Efficient Integrated Programmable Array Accelerator and Compilation Flow for Near-Sensor Ultralow Power Processing. *Das, S., +, TCAD June 2019 1095-1108*

**Data mining**

Changepoint-Based Anomaly Detection for Prognostic Diagnosis in a Core Router System. *Jin, S., +, TCAD July 2019 1331-1344*

MDA: A Reconfigurable Memristor-Based Distance Accelerator for Time Series Mining on Data Centers. *Xu, X., +, TCAD May 2019 785-797*

**Data protection**

IC Protection Against JTAG-Based Attacks. *Ren, X., +, TCAD Jan. 2019 149-162*

**Data structures**

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An Efficient LSM-Tree-Based SQLite-Like Database Engine for Mobile Devices. *Shen, Z., +, TCAD Sept. 2019 1635-1647*

Boolean Gröbner Basis Reductions on Finite Field Datapath Circuits Using the Unate Cube Set Algebra. *Gupta, U., +, TCAD March 2019 576-588*

**Decision diagrams**

Hierarchical Verification of AMS Systems With Affine Arithmetic Decision Diagrams. *Zivkovic, C., +, TCAD Oct. 2019 1785-1798*

**Decision trees**

An Ensemble Learning Approach for *In-Situ* Monitoring of FPGA Dynamic Power. *Lin, Z., +, TCAD Sept. 2019 1661-1674*

**Decoding**

Pair-Bit Errors Aware LDPC Decoding in MLC NAND Flash Memory. *Zhang, M., +, TCAD Dec. 2019 2312-2320*

**Delay circuits**

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**Delay lines**

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**Delays**

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**Design automation**

Cross-Layer Optimization for High Speed Adders: A Pareto Driven Machine Learning Approach. *Ma, Y., +, TCAD Dec. 2019 2298-2311*

Synthesis of Reconfigurable Flow-Based Biochips for Scalable Single-Cell Screening. *Ibrahim, M., +, TCAD Dec. 2019 2255-2270*

**Design for testability**

A Design-for-Test Solution Based on Dedicated Test Layers and Test Scheduling for Monolithic 3-D Integrated Circuits. *Koneru, A., +, TCAD Oct. 2019 1942-1955*

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Invisible-Scan: A Design-for-Testability Approach for Functional Test Sequences. *Pomeranz, I., TCAD Dec. 2019 2357-2365*

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Preventing Scan Attacks on Secure Circuits Through Scan Chain Encryption. *Da Silva, M., +, TCAD March 2019 538-550*

Verification at RTL Using Separation of Design Concerns. *Safieddine, M.H., +, TCAD Aug. 2019 1529-1542*

**Differential equations**

2-D Modeling of Dual-Gate MOSFET Devices Using Quintic Splines. *Wolfson, S.C., +, TCAD March 2019 480-488*

**Digital arithmetic**

Double MAC on a DSP: Boosting the Performance of Convolutional Neural Networks on FPGAs. *Lee, S., +, TCAD May 2019 888-897*

Formal Analysis of Galois Field Arithmetic Circuits-Parallel Verification and Reverse Engineering. *Yu, C., +, TCAD Feb. 2019 354-365*

**Digital circuits**

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**Digital integrated circuits**

A Layout-Based Soft Error Vulnerability Estimation Approach for Combinational Circuits Considering Single Event Multiple Transients (SEMTs). *Cao, X., +, TCAD June 2019 1109-1122*

**Digital signal processing chips**

A High Throughput Acceleration for Hybrid Neural Networks With Efficient Resource Management on FPGA. *Yin, S., +, TCAD April 2019 678-691*

An Efficient SRAM-Based Reconfigurable Architecture for Embedded Processors. *Tamimi, S., +, TCAD March 2019 466-479*

Double MAC on a DSP: Boosting the Performance of Convolutional Neural Networks on FPGAs. *Lee, S., +, TCAD May 2019 888-897*

Low Cost Functional Obfuscation of Reusable IP Cores Used in CE Hardware Through Robust Locking. *Sengupta, A., +, TCAD April 2019 604-616*

**Directed graphs**

An Analytical Approach for Error PMF Characterization in Approximate Circuits. *Sengupta, D., +, TCAD Jan. 2019 70-83*

**Discrete cosine transforms**

Dynamic Approximation of JPEG Hardware. *Sharmin Snigdha, F., +, TCAD Feb. 2019 295-308*

**Diseases**

Synthesis of a Cyberphysical Hybrid Microfluidic Platform for Single-Cell Analysis. *Ibrahim, M., +, TCAD July 2019 1237-1250*

**Disk drives**

Co-Optimizing Storage Space Utilization and Performance for Key-Value Solid State Drives. *Chen, Y., +, TCAD Jan. 2019 29-42*

Overcome the GC-Induced Performance Variability in SSD-Based RAID5 With Request Redirection. *Wu, S., +, TCAD May 2019 822-833*

**Distributed shared memory systems**

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**Distribution networks**

Thermal-Aware Modeling and Analysis for a Power Distribution Network Including Through-Silicon-Vias in 3-D ICs. *Zhu, W., +, TCAD July 2019 1278-1290*

**DNA**

Efficient Generation of Dilution Gradients With Digital Microfluidic Biochips. *Bhattacharjee, S., +, TCAD May 2019 874-887*

**DRAM chips**

A Locality-Aware Compression Scheme for Highly Reliable Embedded Systems. *Hong, J., +, TCAD March 2019 453-465*

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**Drops**

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Security Assessment of Micro-Electrode-Dot-Array Biochips. *Shayan, M., +, TCAD Oct. 2019 1831-1843*

**Dynamic programming**

A Non-Minimal Routing Algorithm for Aging Mitigation in 2D-Mesh NoCs. *Wang, L., +, TCAD July 2019 1373-1377*

Energy-Aware Design of Stochastic Applications With Statistical Deadline and Reliability Guarantees. *Jiang, W., +, TCAD Aug. 2019 1413-1426*

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**E****Electric vehicles**

Fast Pareto Front Exploration for Design of Reconfigurable Energy Storage. *Park, D., +, TCAD March 2019 526-537*

**Electrocardiography**

A Granular Resampling Method and Adaptive Speculative Mechanism-Based Energy-Efficient Architecture for Multiclass Heartbeat Classification. *Xu, Y., +, TCAD Nov. 2019 2172-2176*

**Electron beam lithography**

Fixed-Parameter Tractable Algorithms for Optimal Layout Decomposition and Beyond. *Kuang, J., +, TCAD Sept. 2019 1731-1743*

**Electronic design automation**

Are We There Yet? A Study on the State of High-Level Synthesis. *Lahti, S., +, TCAD May 2019 898-911*

Error Estimation and Error Reduction With Input-Vector Profiling for Timing Speculation in Digital Circuits. *Wang, X., +, TCAD Feb. 2019 385-389*

Layout Hotspot Detection With Feature Tensor Generation and Deep Biased Learning. *Yang, H., +, TCAD June 2019 1175-1187*

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**Electronic engineering computing**

An Ensemble Learning Approach for *In-Situ* Monitoring of FPGA Dynamic Power. *Lin, Z., +, TCAD Sept. 2019 1661-1674*

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Neural Network Classifier-Based OPC With Imbalanced Training Data. *Choi, S., +, TCAD May 2019 938-948*

Post-Silicon Receiver Equalization Metamodeling by Artificial Neural Networks. *Rangel-Patino, F.E., +, TCAD April 2019 733-740*

#### Electrostatic discharge

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#### Embedded systems

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Collaborative Power Management Through Knowledge Sharing Among Multiple Devices. *Tian, Z., +, TCAD July 2019 1203-1215*

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Verification at RTL Using Separation of Design Concerns. *Safieddine, M.H., +, TCAD Aug. 2019 1529-1542*

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#### Encoding

Simultaneous Area and Latency Optimization for Stochastic Circuits by D Flip-Flop Insertion. *Li, Z., +, TCAD July 2019 1251-1264*

#### Encryption

Comprehensive Side-Channel Power Analysis of XTS-AES. *Luo, C., +, TCAD Dec. 2019 2191-2200*

#### Energy conservation

A QoS-QoR Aware CNN Accelerator Design Approach. *Wang, Y., +, TCAD Nov. 2019 1995-2007*

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#### Energy harvesting

Checkpointing-Aware Loop Tiling for Energy Harvesting Powered Nonvolatile Processors. *Li, F., +, TCAD Jan. 2019 15-28*

#### Energy management systems

QoS-Adaptive Approximate Real-Time Computation for Mobility-Aware IoT Lifetime Optimization. *Cao, K., +, TCAD Oct. 2019 1799-1810*

#### Entropy

Entropy Production-Based Full-Chip Fatigue Analysis: From Theory to Mobile Applications. *Wang, T., +, TCAD Jan. 2019 84-95*

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#### Equivalent circuits

Time-Domain Numerical Simulation of Electronic Circuits and Surface Acoustic Wave Devices Using Their Admittance Parameters. *Guerra-Pulido, J.O., +, TCAD March 2019 499-511*

#### Error analysis

An Analytical Approach for Error PMF Characterization in Approximate Circuits. *Sengupta, D., +, TCAD Jan. 2019 70-83*

Formal Probabilistic Analysis of Low Latency Approximate Adders. *Qureshi, A., +, TCAD Jan. 2019 177-189*

#### Error correction codes

Pair-Bit Errors Aware LDPC Decoding in MLC NAND Flash Memory. *Zhang, M., +, TCAD Dec. 2019 2312-2320*

#### Error detection

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**Hardware description languages**

An Efficient SRAM-Based Reconfigurable Architecture for Embedded Processors. *Tamimi, S., +, TCAD March 2019 466-479*

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**Image matching**

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**Inductors**

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**Input variables**

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**Instruction sets**

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**Integer programming**

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**Integrated circuit metallization**

- TSV Repair Architecture for Clustered Faults. *Jang, J.*, +, *TCAD Jan. 2019 190-194*

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#### Microprocessors

Mitigating and Tolerating Read Disturbance in STT-MRAM-Based Main Memory via Device and Architecture Innovations. *Haj Aboutalebi, A.*, +, *TCAD Dec. 2019 2229-2242*

#### Microsensors

Error-Oblivious Sample Preparation With Digital Microfluidic Lab-on-Chip. *Poddar, S.*, +, *TCAD Oct. 2019 1886-1899*

#### Mixed analog digital integrated circuits

Hierarchical Verification of AMS Systems With Affine Arithmetic Decision Diagrams. *Zivkovic, C.*, +, *TCAD Oct. 2019 1785-1798*

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#### Mixing

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#### Multi-threading

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#### Multilayer perceptrons

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#### Multiplexing

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#### Multiprocessing systems

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#### NAND circuits

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**Negative bias temperature instability**

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**Network routing**

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**Network servers**

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**Network synthesis**

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**Network topology**

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**Network-on-chip**

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**Nonlinear control systems**

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**Nonvolatile memory**

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**Numerical analysis**

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**O****Object recognition**

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**Optical crosstalk**

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#### Organic compounds

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Anti-SAT: Mitigating SAT Attack on Logic Locking. *Xie, Y.*, +, *TCAD Feb. 2019 199-207*

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#### Parallel algorithms

Exploiting Shared-Memory to Steer Scalability of Fault Simulation Using Multicore Systems. *Hadjiatheophanous, S.*, +, *TCAD Aug. 2019 1466-1479*

#### Parallel architectures

A Message-Passing Microcoded Synchronization for Distributed Shared Memory Architectures. *Tasoulas, Z.*, +, *TCAD May 2019 975-979*

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Hybrid-DBT: Hardware/Software Dynamic Binary Translation Targeting VLIW. *Rokicki, S.*, +, *TCAD Oct. 2019 1872-1885*

RegionSeeker: Automatically Identifying and Selecting Accelerators From Application Source Code. *Zacharopoulos, G.*, +, *TCAD April 2019 741-754*

#### Parallel processing

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#### Pareto optimization

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#### Parity check codes

Pair-Bit Errors Aware LDPC Decoding in MLC NAND Flash Memory. *Zhang, M.*, +, *TCAD Dec. 2019 2312-2320*

#### Pattern classification

ACHILLES: Accuracy-Aware High-Level Synthesis Considering Online Quality Management. *Tabatabaei-Nikkhah, S.*, +, *TCAD Aug. 2019 1452-1465*

Neural Network Classifier-Based OPC With Imbalanced Training Data. *Choi, S.*, +, *TCAD May 2019 938-948*

#### Pattern clustering

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#### Pattern matching

Layout Hotspot Detection With Feature Tensor Generation and Deep Biased Learning. *Yang, H.*, +, *TCAD June 2019 1175-1187*

#### Perceptrons

Weight Partitioning for Dynamic Fixed-Point Neuromorphic Computing Systems. *Kang, Y.*, +, *TCAD Nov. 2019 2167-2171*

#### Performance evaluation

Hardware-Assisted Cross-Generation Prediction of GPUs Under Design. *O'Neal, K.*, +, *TCAD June 2019 1133-1146*

Hybrid Quick Error Detection: Validation and Debug of SoCs Through High-Level Synthesis. *Campbell, K.*, +, *TCAD July 2019 1345-1358*

#### Phase locked loops

Hierarchical Verification of AMS Systems With Affine Arithmetic Decision Diagrams. *Zivkovic, C.*, +, *TCAD Oct. 2019 1785-1798*

#### Phased arrays

A Millimeter Wave Loss-Aware Methodology for Switchless PALNA Integrated Circuit Design. *Abdomerovic, I.*, +, *TCAD Dec. 2019 2177-2190*

#### Physical design

Cross-Layer Optimization for High Speed Adders: A Pareto Driven Machine Learning Approach. *Ma, Y.*, +, *TCAD Dec. 2019 2298-2311*

#### Pipeline arithmetic

Cost-Effective Error Detection Through Mersenne Modulo Shadow Datapaths. *Campbell, K.*, +, *TCAD June 2019 1056-1069*

#### Pipeline processing

System-on-a-Chip (SoC)-Based Hardware Acceleration for an Online Sequential Extreme Learning Machine (OS-ELM). *Safaei, A.*, +, *TCAD Nov. 2019 2127-2138*

#### Polymer blends

DSA-Compliant Routing for 2-D Patterns Using Block Copolymer Lithography. *Su, Y.*, +, *TCAD Feb. 2019 267-280*

#### Polynomials

Boolean Gröbner Basis Reductions on Finite Field Datapath Circuits Using the Unate Cube Set Algebra. *Gupta, U.*, +, *TCAD March 2019 576-588*

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#### Power amplifiers

A Millimeter Wave Loss-Aware Methodology for Switchless PALNA Integrated Circuit Design. *Abdomerovic, I.*, +, *TCAD Dec. 2019 2177-2190*

#### Power aware computing

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- NVQuery: Efficient Query Processing in Nonvolatile Memory. *Imani, M.*, +, *TCAD April 2019 628-639*
- OCMAS: Online Page Clustering for Multibank Scratchpad Memory. *Chang, D.*, +, *TCAD Feb. 2019 220-233*
- OPTiC: Optimizing Collaborative CPU-GPU Computing on Mobile Devices With Thermal Constraints. *Wang, S.*, +, *TCAD March 2019 393-406*
- Optimal Performance-Aware Cooling on Enterprise Servers. *Chan, C.S.*, +, *TCAD Sept. 2019 1689-1702*
- TEI-ULP: Exploiting Body Biasing to Improve the TEI-Aware Ultralow Power Methods. *Lee, W.*, +, *TCAD Sept. 2019 1758-1770*
- Vulnerability-Aware Energy Optimization for Reconfigurable Caches in Multitasking Systems. *Huang, Y.*, +, *TCAD May 2019 809-821*
- Power consumption**
- Automatic Generation of Peak-Power Traffic for Networks-on-Chip. *Seitanidis, I.*, +, *TCAD Jan. 2019 96-108*
- Crosstalk Noise Reduction Through Adaptive Power Control in Inter/Intra-Chip Optical Networks. *Duong, L.H.K.*, +, *TCAD Jan. 2019 43-56*
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- Power supply circuits**
- A Cross-Layer Framework for Temporal Power and Supply Noise Prediction. *Li, Y.*, +, *TCAD Oct. 2019 1914-1927*
- Taming the Stability-Constrained Performance Optimization Challenge of Distributed On-Chip Voltage Regulation. *Zhan, X.*, +, *TCAD Aug. 2019 1571-1584*
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- Predictive control**
- STREAM: Stress and Thermal Aware Reliability Management for 3-D ICs. *Wang, H.*, +, *TCAD Nov. 2019 2058-2071*
- Principal component analysis**
- Neural Network Classifier-Based OPC With Imbalanced Training Data. *Choi, S.*, +, *TCAD May 2019 938-948*
- Printed circuit design**
- Layer Assignment of Buses and Nets With Via-Count Constraint in High-Speed PCB Designs. *Yan, J.*, *TCAD March 2019 512-525*
- Probability**
- An Analytical Approach for Error PMF Characterization in Approximate Circuits. *Sengupta, D.*, +, *TCAD Jan. 2019 70-83*
- Calculated Risks: Quantifying Timing Error Probability With Extended Static Timing Analysis. *Murray, K.E.*, +, *TCAD April 2019 719-732*
- Defect Clustering-Aware Spare-TSV Allocation in 3-D ICs for Yield Enhancement. *Wang, S.*, +, *TCAD Oct. 2019 1928-1941*
- Energy-Aware Design of Stochastic Applications With Statistical Deadline and Reliability Guarantees. *Jiang, W.*, +, *TCAD Aug. 2019 1413-1426*
- Formal Probabilistic Analysis of Low Latency Approximate Adders. *Qureshi, A.*, +, *TCAD Jan. 2019 177-189*
- Synthesis of a Cyberphysical Hybrid Microfluidic Platform for Single-Cell Analysis. *Ibrahim, M.*, +, *TCAD July 2019 1237-1250*
- Process algebra**
- Boolean Gröbner Basis Reductions on Finite Field Datapath Circuits Using the Unate Cube Set Algebra. *Gupta, U.*, +, *TCAD March 2019 576-588*
- Processor scheduling**
- Affinity-Driven Modeling and Scheduling for Makespan Optimization in Heterogeneous Multiprocessor Systems. *Cao, K.*, +, *TCAD July 2019 1189-1202*
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- Energy-Efficient Application Mapping and Scheduling for Lifetime Guaranteed MPSoCs. *Liu, W.*, +, *TCAD Jan. 2019 1-14*
- Production engineering computing**
- IC Protection Against JTAG-Based Attacks. *Ren, X.*, +, *TCAD Jan. 2019 149-162*
- Program compilers**
- Iterative Search for Reconfigurable Accelerator Blocks With a Compiler in the Loop. *Willsey, M.*, +, *TCAD March 2019 407-418*
- RegionSeeker: Automatically Identifying and Selecting Accelerators From Application Source Code. *Zacharopoulos, G.*, +, *TCAD April 2019 741-754*
- Program control structures**
- Translation Validation of Code Motion Transformations Involving Loops. *Chouksey, R.*, +, *TCAD July 2019 1378-1382*
- Program debugging**
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#### Surface acoustic wave devices

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## T

#### Table lookup

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Time-Domain Numerical Simulation of Electronic Circuits and Surface Acoustic Wave Devices Using Their Admittance Parameters. *Guerra-Pulido, J.O.*, +, *TCAD March 2019 499-511*

**Timing**

Error Estimation and Error Reduction With Input-Vector Profiling for Timing Speculation in Digital Circuits. *Wang, X.*, +, *TCAD Feb. 2019 385-389*

Spatial Timing Analysis With Exact Propagation of Delay and Application to FPGA Performance. *Lewis, D.*, +, *TCAD Nov. 2019 2153-2166*

**Timing circuits**

Automatic Retiming of Two-Phase Latch-Based Resilient Circuits. *Cheng, H.*, +, *TCAD July 2019 1305-1316*

**Transceivers**

Hierarchical Verification of AMS Systems With Affine Arithmetic Decision Diagrams. *Zivkovic, C.*, +, *TCAD Oct. 2019 1785-1798*

**Transient analysis**

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**Transient response**

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Time-Domain Numerical Simulation of Electronic Circuits and Surface Acoustic Wave Devices Using Their Admittance Parameters. *Guerra-Pulido, J.O.*, +, *TCAD March 2019 499-511*

**Tree data structures**

An Efficient LSM-Tree-Based SQLite-Like Database Engine for Mobile Devices. *Shen, Z.*, +, *TCAD Sept. 2019 1635-1647*

**Tree searching**

Directed Test Generation for Validation of Cache Coherence Protocols. *Lyu, Y.*, +, *TCAD Jan. 2019 163-176*

**Trees (mathematics)**

A Binary-Feature-Based Object Recognition Accelerator With 22 M-Vector/s Throughput and 0.68 G-Vector/J Energy-Efficiency for Full-HD Resolution. *Liu, L.*, +, *TCAD July 2019 1265-1277*

Efficiently Mapping VLSI Circuits With Simple Cells. *Matos, J.M.*, +, *TCAD April 2019 692-704*

Scalable Construction of Clock Trees With Useful Skew and High Timing Quality. *Ewetz, R.*, +, *TCAD June 2019 1161-1174*

**Trusted computing**

A Practical Split Manufacturing Framework for Trojan Prevention via Simultaneous Wire Lifting and Cell Insertion. *Li, M.*, +, *TCAD Sept. 2019 1585-1598*

**Two-phase flow**

Automated Dimensioning of Networked Labs-on-Chip. *Grimmer, A.*, +, *TCAD July 2019 1216-1225*

**U****User interfaces**

An Efficient LSM-Tree-Based SQLite-Like Database Engine for Mobile Devices. *Shen, Z.*, +, *TCAD Sept. 2019 1635-1647*

**V****VLSI**

A Comprehensive Reliability Analysis Framework for NTC Caches: A System to Device Approach. *Gebregiorgis, A.*, +, *TCAD March 2019 439-452*

Efficiently Mapping VLSI Circuits With Simple Cells. *Matos, J.M.*, +, *TCAD April 2019 692-704*

Enhanced Optimal Multi-Row Detailed Placement for Neighbor Diffusion Effect Mitigation in Sub-10 nm VLSI. *Han, C.*, +, *TCAD Sept. 2019 1703-1716*

TEI-ULP: Exploiting Body Biasing to Improve the TEI-Aware Ultralow Power Methods. *Lee, W.*, +, *TCAD Sept. 2019 1758-1770*

**Voltage control**

Taming the Stability-Constrained Performance Optimization Challenge of Distributed On-Chip Voltage Regulation. *Zhan, X.*, +, *TCAD Aug. 2019 1571-1584*

**Voltage regulators**

Taming the Stability-Constrained Performance Optimization Challenge of Distributed On-Chip Voltage Regulation. *Zhan, X.*, +, *TCAD Aug. 2019 1571-1584*

**W****Wires (electric)**

Synergistic Topology Generation and Route Synthesis for On-Chip Performance-Critical Signal Groups. *Liu, D.*, +, *TCAD June 2019 1147-1160*