

AdAM: Adaptive Approximate Multiplier for Fault Tolerance in DNN Accelerators

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AdAM: adaptive fault-tolerant approximate multiplier for edge DNN accelerators

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Digital Twin : industrial robot kinematic model integration to the virtual reality environment

Kuts, Vladimir; Cherezova, Natalia; Sarkans, Martinš; Otto, Tauno Journal of machine engineering 2020 / p. 53–64
<https://doi.org/10.36897/jme/120182> [Journal metrics at Scopus](#) [Article at Scopus](#)

Exploration of Activation Fault Reliability in Quantized Systolic Array-Based DNN Accelerators

Taheri, Mahdi; Cherezova, Natalia; Ansari, Mohammad Saeed; Jenihhin, Maksim; Mahani, Ali; Daneshtalab, Masoud; Raik, Jaan 25th International Symposium on Quality Electronic Design (ISQED) 2024 / 8 p. : ill <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10528372> <https://doi.org/10.1109/ISQED60706.2024.10528372> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Heterogeneous Approximation of DNN HW Accelerators based on Channels Vulnerability

Cherezova, Natalia; Pappalardo, Salvatore; Taheri, Mahdi; Ahmadilivani, Mohammad Hasan; Deveautour, Bastien; Bosio, Alberto; Raik, Jaan; Jenihhin, Maksim 2024 IFIP/IEEE 32nd International Conference on Very Large Scale Integration (VLSI-SoC) 2024 / 4 p. : ill <https://doi.org/10.1109/VLSI-SoC62099.2024.10767798> [Conference proceedings at Scopus](#) [Article at Scopus](#)

HLS-based optimization of tau triggering algorithm for LHC: a case study

Cherezova, Natalia; Mihhailov, Dmitri; Devadze, Sergei; Jutman, Artur 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 p. : ill <https://doi.org/10.1109/BEC56180.2022.9935599>

Keynote: cost-efficient reliability for Edge-AI chips

Jenihhin, Maksim; Taheri, Mahdi; Cherezova, Natalia; Ahmadilivani, Mohammad Hasan; Selg, Hardi; Jutman, Artur; Shibin, Konstantin; Tsertov, Anton; Devadze, Sergei; Kodamanchili, Rama Mounika; Rafiq, Ahsan; Raik, Jaan; Daneshtalab, Masoud 2024 IEEE 25th Latin American Test Symposium (LATS) 2024 / 2 p <https://doi.org/10.1109/LATS62223.2024.10534610> [Article at Scopus](#)

Understanding fault-tolerance vulnerabilities in advanced SoC FPGAs for critical applications

Cherezova, Natalia; Shibin, Konstantin; Jenihhin, Maksim; Jutman, Artur Microelectronics reliability 2023 / art. 115010, 10 p. : ill <https://doi.org/10.1016/j.microrel.2023.115010> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)