2022 IBM IEEE AI Compute Symposium

In-person Poster Session
October 12, 2022 | 3:00 - 5:00 PM EDT
ThinkLab Conference Rooms 3/4/5 | IBM T. J. Watson Research Center

#	Track	Title	Presenter & Affiliation
1	T1	Machine Learning-Based Power Modeling of Digital Circuits	Wachirawit Ponghiran - Purdue University
2	T1	Gate Arrival Time Prediction ThroughGraph Representation Learning	Pratik Shrestha - Drexel University
3	T1	Algorithm and Hardware Co-Design ofEnergy-Efficient LSTM Networks for VideoRecognition with Hierarchical Tucker TensorDecomposition	Yu Gong - Rutgers University
4	T1	Cardiac Disease Detection on the Edge with Efficientand Secure Deep Learning Resistant to Adversarial Attacks	Qingxue (Jack) Zhang - Purdue University
5	T1	AI Approaches to Autonomous Navigation in Complex Natural Environments Inspired by Bat Biosonar	Michael Goldsworthy - Virginia Tech
6	T1	Extremely Lightweight and Robust Insect-Drone Localization by Integrated Learning of Depth Estimates and Domain Map	Priyesh Shukla - University of Illinois at Chicago
7	T1	A Python Framework for SPICE Circuit Simulation of In-Memory Analog Computing Circuits	Md Hasibul Amin - University of South Carolina
8	T2	NeuSB: A Scalable Interconnect Architecture forSpiking Neuromorphic Hardware	Phu Khanh Huynh - Drexel University
9	T2	Computational Storage for Data Preprocessing	Kevin Tang - SK hynix America
10	T2	A Quantum-Inspired Stochastic Long Short-Term Memory Model	Joseph Lindsay - University of South Carolina
11	T2	HPUs as the Next Paradigm in Computing	Youbin Kim - UC Berkeley
12	T2	CEPD: CO-EXPLORINGPRUNING ANDDECOMPOSITION FORCOMPACTDNN MODELS	Yang Sui - Rutgers University
13	T3	Built-in Functional Testing of Analog In-Memory Accelerators for Deep Neural Networks	Abhishek Kumar Mishra - Drexel University
14	T3	Reliability-Aware Deployment of DNNs on In-Memory Analog Computing Architectures	Md Hasibul Amin - University of South Carolina
15	T3	Design of Many-Core Big Little μBrains for Energy-Efficient Embedded Neuromorphic Computing	Lakshmi Varshika Mirtinti - Drexel University
16	T3	Graph Neural Networks for Transfer of PerformanceModels Across Analog Circuit Topologies	Zhengfeng Wu - Drexel University

T1: AI Systems & Applications
T2: AI Architectures & Algorithms
T3: T3: Emerging HW for AI compute

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Virtual Poster Session

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Webinar join link: https://ibm.webex.com/ibm/j.php?MTID=m121e9f45ad04e58cdcaba64865277381
Password: aics2022virtual (24272022 from phones)
Join by phone: 1-844-531-0958 United States Toll Free | Access code: 145 608 7750
Global call-in numbers: https://ibm.webex.com/webappng/sites/ibm/meeting/info/f7d63b3c33ba4458a212da84bc5005e5#

#	Track	Title	Presenter & Affiliation
1	T1	Agile and Explainable Exploration of Efficient Hardware/Software Codesigns of Deep Learning Accelerators	Shail Dave - Arizona State University
2	T1	Physics-constrained Graph Modeling for Building Thermal Dynamics	Ziyao Yang - Arizona State University
3	T1	Cloud-Bursting for EDA Workflows with Ray: A Proof of Concept	Tingkai Liu - University of Illinois Urbana-Champaign
4	T2	On-Device Training Under 256KB Memory	Lin Ji - MIT
5	T2	A Heterogeneous Hardware Accelerator for Capsule Networks via Hardware-Software Co-Design	Rizk Rodrigue - University of Louisiana at Lafayette
6	T2	I-SPOT: Supporting Resilient Cloud ComputingUsing Counterfactual Reasoning	Harshitha Sreejith - University of Illinois Urbana-Champaign
7	T2	Algorithm-Hardware Co-Design for Efficient and Reconfigurable Localization in Autonomous Machines	Zishen Wan - Georgia Institute of Technology
8	T2	Pareto Rank-Preserving Supernetwork for HW-NAS	Hadjer Benmeziane - Université Polytechnique Hauts-de-France
9	T2	On-Board Signal Reconstruction from Neuron Spikes	Soumya BL - IIITDM Kancheepuram, Chennai, India
10	T3	Designing Highly Reliable Systems Using Random Devices	Valeriu Beiu - Aurel Vlaicu Univ.
11	T3	Timing Extraction of Biomedical Signals	Priya K - IIITDM Kancheepuram, Chennai, India
12	T3	ECG Encoding using Izhikevich Neuron Model	A Balavignesh - IIITDM Kancheepuram, Chennai, India
13	T3	ECG Encoding with AdEx Neuron	Pradeep Kumar Velidi - IIITDM Kancheepuram, Chennai, India
14	T3	RRAM Based On-Sensor Visual Data Preprocessing for Efficient Image Classification Task	Ashwani Kumar - Indian Institute of Technology Delhi
15	T3	Big-Little Chiplets for In-Memory Acceleration ofDNNs: A Scalable Heterogeneous Architecture	Zhenyu Wang - Arizona State University
16	T3	PhotoFourier: A Photonic Joint Transform Correlator-Based Neural Network Accelerator	Shurui Li - UCLA

T1: AI Systems & Applications

T2: AI Architectures & Algorithms

T3: T3: Emerging HW for AI compute