

November 3, 2021

Welcome and Introduction: 9.00 AM CST (Central Time Zone, UTC-06:00)

Introduction by the Organizing Committee

Albert Cheng (General Chair), Erol Gelenbe and Jehan-François Paris (Program Co-Chairs), Tadeusz Czacchorski (Finance Chair), Krzysztof Grochla (Publicity Chair), Ricardo Lent (Publication Chair)

All papers are 20 minutes presentation, 5 minutes Q/A

Session 1: 9.15 AM CST

Session Chair: Erol Gelenbe

9.15: Deep Learning Models for Automated Identification of Scheduling Policies

Yichong Chen and Giuliano Casale

9.40: S4BXI: the MPI-ready Portals 4 Simulator

Julien Emmanuel, Matthieu Moy, Ludovic Henrio and Grégoire Pichon

10.05: Energy-Efficiency Comparison of Common Sorting Algorithms

Norbert Schmitt, Supriya Kamthania, Nishant Rawtani, Luis Mendoza, Klaus-Dieter Lange and Samuel Kounev

10.30: An "A+" Heuristic for Dispatching in Large-Scale Systems with Unknown Server Speeds

Cole Stephens and Kristen Gardner

10.55: OLTP In Real Life: A Large-scale Study of Database Behavior in Modern Online Retail

Nosayba El-Sayed, Zhuoran Sun, Ke Sun and Ricardo Mayerhofer

Session 2: 11:00 AM CST

Session Chair: Albert Cheng

11.00: Scaling Up The Performance of Distributed Key-Value Stores With In-Switch Coordination

Hebatalla Eldakiky and David Hung-Chang Du

11.25: Simulation Modeling of Urban E-Scooter Mobility

Rachel Mclean, Carey Williamson and Lina Kattan

11.50: Performance Characterization of MPI.Allreduce in Cloud Data Center Networks

Malek Musleh, Allister Alemania, Roberto Penaranda and Pedro Yebenes Segura

12.15: Enabling Extremely Fine-grained Parallelism via Scalable Concurrent Queues on Modern Many-core Architectures

Poornima Nookala, Peter Dinda, Kyle Hale, Ioan Raicu and Kyle Chard

12.40: Mechanisms for Transition from Monolithic to Distributed Architecture in Software Development Process

Aneta Poniszewska-Maranda, Joanna Macioch, Bożena Borowska and Witold Marańda

November 4, 2021

Session 3: 9 AM CST*Session Chair: Tadeusz Czachorski***9.00: Precomputed Ionospheric Propagation for HF Wireless Sensor Transmission Scheduling***Terry Koziniec, David Murray and Michael Dixon***9.25: Efficient Brain-Inspired Hyperdimensional Learning with Spatiotemporal Structured Data***Jiseung Kim, Hyunsei Lee, Mohsen Imani and Yeseong Kim***9.50: Sparse Matrix-Vector Multiplication Cache Performance Evaluation and Design Exploration***Javen Cui, Liu Sheng and Kai Lu***10.25: A Mixture Density Network Approach to Predicting Response Times in Layered Systems***Zifeng Niu and Giuliano Casale***10.50: Automated Performance Prediction of Microservice Applications Using Simulation***Clement Courageux-Sudan, Anne-Cécile Orgerie and Martin Quinson***Session 4: 11:20 AM CST***Session Chair: Jehan-François Paris***11.20: Performance Evaluation of Automated Tape Library Systems***Ilias Iliadis, Linus Jordan, Mark Lantz and Slavisa Sarafijanovic***11.45: Does XORing Pointers Save Bitflips for NVRAM***Arockia David Roy Kulandai and Thomas Schwarz***12.10: Understanding Energy Efficiency of Databases on Single Board Computers for Edge Computing***Jian Liu, Kefei Wang and Feng Chen***12.35: A Multiple Snapshot Attack on Deniable Storage Systems***Kyle Fredrickson, Austen Barker and Darrell Long***13.00: Towards Efficient I/O Scheduling for Collaborative Multi-Level Checkpointing***Avinash Murya, Bogdan Nicolae, M. Mustafa Rafique, Thierry Tonellot and Franck Cappello*

November 5, 2021

Session 5: 9 AM CST*Session Chair: Krzysztof Grochla***9.00: A Case for SDN-based Network Virtualization***Gyeongsik Yang, Changyong Shin, Yeonho Yoo and Chuck Yoo***9.25: REBAL : Channel Balancing for Payment Channel Networks***Nitin Awathare, Suraj Suraj, Akash Akash, Vinay Ribeiro and Umesh Bellur***9.50: Exact and Efficient Protective Jamming in SINR-based Wireless Networks***Dominik Bojko, Marek Klonowski, Dariusz R. Kowalski and Mateusz Marciniak***10.15: Diffusion Analysis Improves Scalability of IoT Networks to Mitigate the Massive Access Problem***Erol Gelenbe, Mert Nakip, Dariusz Marek and Tadeusz Czachorski***10.40: Capri: Achieving Predictable Performance in Cloud Spot Markets***Bogdan Ghit and Asser Tantawi***11.05: Characterizing Machine Learning I/O Workloads on Leadership Scale HPC Systems***Arnab K. Paul, Ahmad Maroof Karimi and Feiyi Wang***End of Symposium***Final Comments and Conclusion: Ricardo Lent*