

PDSEC-22 Advance Program – Times in **EDT (Eastern Daylight Time Zone)**

10:00 – 11:00 Session 1

10:00 – 10:10 **Welcome, Opening Remarks and Best Paper Announcement**

10:10 – 10:20 **PLSSVM: A (multi-)GPGPU-accelerated Least Squares Support Vector Machine**

Alexander Van Craen, Marcel Breyer and Dirk Pflüger

10:20 – 10:30 **Least Squares on GPUs in Multiple Double Precision**

Jan Verschelde

10:30 – 10:40 **A Simple, Fast, and GPU-friendly Steiner-Tree Heuristic**

William Fallin, Aarti Kothari, Jiayuan He, Christopher Yanez, Keshav Pingali, Rajit Manohar and Martin Burtcher

10:40 – 10:50 **Performance Evaluation of Supercomputers Based on AMD Rome and Intel Cascade Lake Processors**

Subhash Saini

10:50 – 11:00 **A Scalable Parallel Partition Tridiagonal Solver for Many-Core and Low B/F Processors**

Tatsuya Mitsuda and Kenji Ono

11:00 – 11:10 Break

11:10 – 12:10 Session 2

11:10 – 11:20 **Python Micro-Benchmarks for Evaluating Performance of MPI Libraries on HPC Systems**

Nawras Alnaasan, Arpan Jain, Aamir Shafi, Hari Subramoni and Dhabaleswar K. Panda

11:20 – 11:30 **Machine Learning for CUDA+MPI Design Rules**

Carl Pearson, Aurya Javeed and Karen Devine

11:30 – 11:40 Using Performance Attributes for Managing Heterogeneous Memory in HPC Applications

Brice Goglin and Andrés Rubio Proaño

11:40 – 11:50 Synchronous parallel multisplitting method with convergence acceleration using a local Krylov-based minimization for solving linear systems

Medane Tchakorom, Raphaël Couturier and Jean-Claude Charr

11:50 – 12:00 MultiGrid on FPGA Using Data Parallel C++

Christopher Siefert, Stephen L. Olivier, Gwendolyn Voskuilen and Jeffrey Young

12:00 – 12:10 Closing Remarks
