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Program

Technical Session 1: GPU and Many-core Simulations

[A Multi-GPU Algorithm for Communication in Neuronal Network Simulations](#) `\$\$%`
Raphael Y de Camargo

[Parallel Implementation of MOPSO on GPU using OpenCL and CUDA](#) `%%`
Pushkar Arun Jambhalekar, Manoj Mishra, Sheshasayee Subramaniam

[Spectral Evolution Simulation on Leading Multi-socket, Multicore Platforms](#) ``&%`
Siham Tabik, Petar Mimica, Oscar Plata, Emilio Zapata, Luis Romero

[Compute & Memory Optimizations for High-Quality Speech Recognition on Low-End GPU Processors](#) ``'\$` %`
Kshitij Gupta, John D Owens

Technical Session 2: Best Papers

[The Impact of Hyper-Threading on Processor Resource Utilization in Production Applications](#) ``\$(` %`
Subhash Saini, Haoqiang Jin, Robert Hood, David Barker, Piyush Mehrotra, Rupak Biswas

[Optimizing Multicore Performance with Message Driven Execution: A Case Study](#) ``\$)` %`
Pritish Jetley, Laxmikant V Kale

Technical Session 3: Storage and I/O

[Reliable and Randomized Data Distribution Strategies for Large Scale Storage Systems](#) ``\$*` %`
Alberto Miranda, Sascha Effert, Yangwook Kang, Ethan L Miller, Andre Brinkmann, Toni Cortes

[Supporting Computational Data Model Representation with High-performance I/O in Parallel netCDF](#) ``\$+` %`
Kui Gao, Chen Jin, Alok Choudhary, Wei-keng Liao

[A Multiresolution Data Model for Improving Simulation I/O Performance](#) ``\$,` %`
Andrew Foulks, R Daniel Bergeron

[Comparing archival policies for Blue Waters](#) ``\$-` %`
Franck Cappello, Mathias Jacquelin, Loris Marchal, Yves Robert, Marc Snir

[STEAMEngine: Driving MapReduce Provisioning in the Cloud](#) ``%\$` %`
Michael Cardoso, Piyush Narang, Abhishek Chandra, Himabindu Pucha, Aameek Singh

Technical Session 4: GPU Algorithms

[Hybrid Algorithms for List Ranking and Graph Connected Components](#)

Dip Sankar Banerjee, Kishore Kothapalli

[Parallel Multiple Precision Division by a Single Precision Divisor](#)

Niall Emmart, Charles Weems

[Scalable Clustering using Multiple GPUs](#)

Wasif Mohiuddin, K, Narayanan P J

[Hybrid Implementation of Error Diffusion Dithering](#)

Aditya Deshpande, Ishan Misra, Narayanan P J

Technical Session 5: Parallel Programming and Frameworks

[Porting Irregular Reductions on Heterogeneous CPU-GPU Configurations](#)

Xin Huo, Vignesh T Ravi, Gagan Agrawal

[Building Algorithmically Nonstop Fault Tolerant MPI Programs](#)

Rui Wang, Erlin Yao, Mingyu Chen, Guangming Tan, Pavan Balaji, Darius Buntinas

[High-level template for the task-based parallel wavefront pattern](#)

Antonio J. Dios, Rafael Asenjo, Angeles Navarro, Francisco Corbera, Emilio L Zapata

[Enabling CUDA Acceleration within Virtual Machines using rCUDA](#)

José Duato, Antonio J Peña, Federico Silla, Juan C Fernández, Rafael Mayo, Enrique S Quintana-Ort

Technical Session 6: Scheduling

[Coordination Mechanisms for Selfish Multi-Organization Scheduling](#)

Johanne Cohen, Daniel Cordeiro, Denis Trystram, Frédéric Wagner

[Maximizing Throughput of Jobs with Multiple Resource Requirements](#)

Venkatesan T Chakaravarthy, Sambuddha Roy, Yogish Sabharwal, Neha Sengupta

[Weighted locality-sensitive scheduling for mitigating noise on multi-core clusters](#)

Vivek Kale, Abhinav Bhatele, William D Gropp

[Scheduling Diverse High Performance Computing Systems with the Goal of Maximizing Utilization](#)

Tabitha K Samuel, Troy Baer, Glenn Brook, Matt Ezell, Patricia Kovatch

[A Dynamic Scheduling Framework for Emerging Heterogeneous Systems](#)

Vignesh T Ravi, Gagan Agrawal

Technical Session 7: Large Scale Parallel and Distributed Algorithms

[GVT Algorithms and Discrete Event Dynamics on 129K+ Processor Cores](#)

Kalyan S. Perumalla, Alfred J Park, Vinod Tipparaju

[Improving Graph Coloring on Distributed-Memory Parallel Computers](#)

Ahmet Erdem Sariyuce, Erik Saule, Umit V Catalyurek

[Modelling and Analyzing the Authorization and Execution of Video Workflows](#)

Ligang He, Chenlin Huang, Kenli Li, Hao Chen, Jianhua Sun, Bo Gao, Kewei Duan, Stephen A Jarvis

[Multi-model prediction for enhancing content locality in elastic server infrastructures](#)

Juan M Tirado, Daniel Higuero, Florin Isaila, Jesus Carretero

