PMUP Program

Session 1: *Thread Coordination and Synchronization (8:30am)*
Session Chair: Jim Larus, Microsoft Research

*Amortizing Software Queue Overhead for Pipelined Inter-Thread Communication*
Ram Rangan and David I. August
Princeton University

*The Fresh Breeze Model of Thread Coordination*
Jack B. Dennis
MIT Computer Science and Artificial Intelligence Laboratory

*Enhancing Price/Performance for OpenMP using Processing-in-Memory*
Arun Rodrigues\(^1\), Srinivas Sridharan\(^2\), Shyamkumar Thoziyoor\(^2\), Jay Brockman\(^2\), Keith Underwood\(^1\) and Peter Kogge\(^2\)
\(^1\)Sandia National Laboratory \(^2\)Notre Dame University

*An Implementation and Evaluation of Thread Subteam for OpenMP Extensions*
Lei Huang, Barbara Chapman and Chunhua Liao
University of Houston

**Break (10:30am – 11am)**

Session 2: *Libraries (11am)*
Session Chair: Vijay Pai, Purdue University

*User Transparent Parallel Video Mining Library*
Eric Li\(^1\), Wenlong Li\(^1\) and Carole Dulong\(^2\)
\(^1\)Intel China Research Centre \(^2\)Intel Corporation

*Parallelism in Spiral*
Franz Franchetti\(^1\), Andreas Bonelli\(^2\), Ekapol Chuangsuwanich\(^1\), Yu-Chiang J. Lee\(^1\), Jürgen Lorenz\(^2\), Thomas Peter\(^3\), Hao Shen\(^4\), Marek Telgarsky\(^1\), Yevgen Voronenko\(^1\), Markus Püschel\(^1\), José M. F. Moura\(^1\), Christoph W. Ueberhuber\(^2\)
\(^1\)Carnegie Mellon University \(^2\)Vienna University of Technology \(^2\)ETH Zürich \(^3\)Technical University of Denmark

*Charm++, Offload API, and the Cell Processor*
David Kunzman, Gengbin Zheng, Eric Bohm and Laxmikant V. Kale
University of Illinois at Urbana-Champaign
**Lunch (12:30 – 2:00)**

**Session 3: Languages**  
Session Chair: Kath Knobe, Intel

*Expressing and Exploiting Concurrency in Networked Applications with Aspen*  
Gautam Upadhyaya, Vijay S. Pai and Samuel P. Midkiff  
Purdue University

*A Programming Model and Language Implementation for Concurrent Failure-Prone Hardware*  
Phillip Stanley-Marbell and Diana Marculescu  
Carnegie Mellon University

*Experiences with an SMP Implementation for X10 based on the Java Concurrency Utilities*  
Rajkishore Barik¹, Vincent Cave³, Christopher Donawa², Allan Kielstra²,  
Igor Peshansky³ and Vivek Sarkar³  
¹IBM India Research Lab ²Toronto Laboratory ³T J Watson Research Center

**Break (3:30 – 4:00)**

**Session 5: Open Discussion – How will the parallel programs of the future be designed, implemented, tested and maintained? (4:00 – 5:30)**  
Moderators: Maria Garzaran and Sam Midkiff