Runtime Systems for Extreme Scale Programming Models and Architectures

SC15 Workshop
(Monday, November 16th, 2015, Room: Hilton 400-402)

Workshop Schedule

Please note that the regular papers will have 20 mins and the short papers will have 10 mins for presentation. This includes the time for Q/A.

• **Session 1 (09:00-10:00): Welcome and Keynote**
  o Welcome: 9:00-09:10 Siegfried Benkner, Vivek Sarkar (Workshop co-chairs)
  o Keynote: 9:10-10:00 Tim Mattson (Intel)

• **Coffee Break (10:00-10:30)**

• **Session 2 (10:30-12:00): Scheduling & Memory Management**
  o Analysis of Application Sensitivity to System Performance Variability in a Dynamic Task Based Runtime.
    G. Shipman, P. McCormick, K. Pedretti, S. Olivier, K. Ferreira, R. Sankaran, S. Treichler, A. Aiken, M. Bauer
    (20 Minutes)
  o SPAWN: An Iterative, Potentials-Based, Dynamic Scheduling and Partitioning Tool.
    J. Papin, C. Denoual, L. Colombet, R. Namyst
    (20 Minutes)
  o Scalable and Locality-aware Resource Management with Task Assembly Objects.
    M. Pericas
    (20 Minutes)
  o Efficient Static and Dynamic Memory Management Techniques for Multi-GPU Systems.
    M. Grossman, M. Araya-Polo
    (20 Minutes)
  o Match-making: A Solution Path for Workstealing at Scale for Irregular Applications.
    H. Parikh, V. Deodhar, A. Gavrilovska, S. Pande
    (10 Minutes)

• **Lunch Break (12:00-13:30)**
• **Session 3 (13:30-15:00): Extreme Scale Runtime Systems**
  - Characterizing Application Execution using the Open Community Runtime. Z. Budimlic, V. Cave, S. Chatterjee, R. Cledat, V. Sarkar, B. Seshasayee, R. Surendran, N. Vrvilo (20 Minutes)
  - OCR-Vx – An Alternative Implementation of the Open Community Runtime. J. Dokulil, M. Sandrieser, S. Benkner (20 Minutes)
  - Implementing a High-level Tuning Language on the Open Community Runtime: Experience Report. N. Vrvilo, R. Cledat (10 Minutes)
  - Improving data reuse in co-located applications with progress-driven scheduling. K. Chandrasekar, B. Seshasayee, A. Gavrilovska, K. Schwan (10 Minutes)
  - Efficient and Predictable Group Communication Messaging over Multicore NoCs. K. Yagna, O. Patil, F. Mueller (10 Minutes)

• **Coffee Break (15:00-15:30)**

• **Session 4 (15:30-16:00): Runtime Ecosystem**
  - Exploring the APGAS Programming Model using the LULESH Proxy Application. J. Milthorpe, D. Grove, B. Herta, O. Tardieu (10 Minutes)
  - Enabling Runtime/Application Co-Design through Common Concurrency Concepts. J. Wilke, J. Bennett, R. Clay (10 Minutes)

• **Session 5 (16:00-17:30): Panel discussions & Wrap-up**
  - Session 2 speakers panel (16:00 - 16:30)
  - Session 3 speakers panel (16:30 - 15:00)
  - Session 4 speakers panel (15:00 - 15:15)
  - Wrap-up (15:15 - 15:30)