GPGPU-5 Final Program  
March 3, 2012  
London, England

8:30 Welcome:  
8:45-9:30 Keynote: An Introduction to GCN, Norman Rubin, AMD Fellow  
9:30-10:30 Frameworks I

- Introducing “Bones”: A Parallelizing Source-to-Source Compiler Based on Algorithmic Skeletons, Cedric Nugteren and Henk Corporaal.
- A Distributed Data-Parallel Framework for Analysis and Visualization Algorithm Development, Jeremy Meredith, Robert Sisneros, David Pugmire and Sean Ahern.
- FLAT: A GPU Programming Framework to Provide Embedded MPI, Takefumi Miyoshi, Keigo Shima, Masaaki Kondo, Hidetsugu Irie, Hiroki Honda and Tsutomu Yoshinaga.

10:30-11:00 Break  
11:00-12:20 Applications

- Dynamic Particle System for Mesh Extraction on the GPU, Mark Kim, Guoning Chen and Charles Hansen.
- High-Performance Sparse Matrix-Vector Multiplication on GPUs for Structured Grid Computations, Jeswin Godwin, Justin Holewinski and P. Sadayappan.
- High Performance 3-D FFT using multiple CUDA GPUs, Akira Nukada, Yutaka Maruyama and Satoshi Matsuoka.

12:20-1:30 Lunch  
1:30-2:50 Frameworks II

- Paragon: Collaborative Speculative Loop Execution on GPU and CPU, Mehrzad Samadi, Amir Hormati, Janghaeng Lee and Scott Mahlke.
- Enabling Task-level Scheduling on Heterogeneous Platforms, Enqiang Sun, Dana Schaa, Richard Bagley, Norman Rubin and David Kaeli.
- Auto-tuning Interactive Ray Tracing using an Analytical GPU Architecture Model, Per Ganestam and Michael Doggett.

2:50-3:30 Break  
3:20-4:30 Simulators and Models

- Full System Simulation of Many-Core Heterogeneous SoCs using GPU and QEMU Semihosting, Shivani Raghav, Christian Pinto, Martino Ruggiero, Andrea Marongiu, David Atienza and Luca Benini.
- Reducing Off-chip Memory Traffic by Selective Cache Management Scheme in GPGPUs, Hyojin Choi, Jaewoo Ahn and Wonyong Sung.

4:30-6:00 Joint EXADAPT-2 / GPGPU-5 round table: "Leveraging GPUs and Self-Tuning Systems on the Road to Exascale"