### Session I: Parallel Programming Models and Languages

**Session Chair:** Prof. Xiaofei Liao  
*Huazhong University of Science and Technology*

- **Kokkos Array Performance-Portable Manycore Programming Model**  
  *H. Carter Edwards and Daniel Sunderland*
- **An Hybrid Model for Very High Level Threads**  
  *Jafar Al-Gharaibeh, Clinton Jeffery and Kostas Oikonomou*
- **Function Flow: Making Synchronization Easier in Task Parallelism**  
  *Xuepeng Fan, Hai Jin, Liang Zhu, Xiaofei Liao and Chengcheng Ye*
- **New Strategy for Coarse Grid Solvers in Parallel Multigrid Methods using OpenMP/MPI Hybrid Programming Models**  
  *Kengo Nakajima*
- **Networks Beat Pipelines: The Design of FG 2.0**  
  *Peter Johnson and Thomas Cormen*

**Break 8:30-10:00**

### Session II: Cache, Memory and IO

**Session Chair:** Prof. Dongrui Fan  
*Institute of Computing Technology, Chinese Academy of Sciences, China*

- **AGC: Adaptive Global Clock in STMs**  
  *Ehsan Atooefian and Amir Ghanbari Bavarsad*
- **Efficient Execution of Time-step Computations with Pipelined Parallelism and Inter-thread Data Locality Optimizations**  
  *Apan Qasem*
- **Revisiting Shared Virtual Memory Systems for Non-Coherent Memory-Coupled Cores**  
  *Stefan Lankes, Pablo Reble, Carsten Clauss and Oliver Sinnen*
- **Efficient Memory Management of a Hierarchical and a Hybrid Main Memory for MN-MATE Platform**  
  *Kyu Ho Park, Sung Kyu Park, Hyunchul Seok, Woomin Hwang, Dong-Jae Shin, Jong Hun Choi and Ki-Woong Park*
- **Massively Parallel Breadth First Search using a Tree-Structured Memory Model**  
  *Tom St. John, Jack Dennis and Guang Gao*

**Break 10:00-10:30**

### Session III: Parallel Algorithm Optimization

**Session Chair:** Prof. Uzi Vishkin  
*University of Maryland*

- **PMA: Pixel-based Multi-Anchor Algorithm for Image Recognition on Multi-core Systems**  
  *Xiaoxin Tang, Long Zheng, Jun Ma, Yao Shen, Li Li and Minyi Guo.*
- **Better Speedups Using Simpler Parallel Programming for Graph Connectivity and Biconnectivity**  
  *James Edwards and Uzi Vishkin*
- **Shared Work List: Hacking Amorphous Data Parallelism in UPC**  
  *Shixiong Xu and Li Chen.*
- **A Case for Secure and Scalable Hypervisor using Safe Language**  
  *Haibo Chen and Binyu Zang*
- **Semi-sparse Algorithm Based on Multi-layer Optimization for Recommendation System**
<table>
<thead>
<tr>
<th>Time</th>
<th>Session IV: GPU Acceleration</th>
<th>Session Chair: Prof. Ehsan Atoofian</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:00-15:30</td>
<td>Break</td>
<td>Lakehead University, Canada</td>
</tr>
<tr>
<td>15:30-17:00</td>
<td>GHOST: GPGPU-Offloaded High Performance Storage I/O Deduplication for Primary Storage System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chulmin Kim, Ki-Woong Park and Kyu Ho Park</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exploring Parallelism in Volume Ray Casting: Understanding the Programming Issues of Multithreaded Accelerators</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guilherme Cox, Cleomar Silva, Leandro Cupertino, Cristiana Bentes and Ricardo Farias</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Techniques for the Parallelization of Unstructured Grid Applications on Multi-GPU Systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lizandro Solano-Quinde, Brett Bode and Arun Somani</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chestnut: A GPU Programming Language for Non-Experts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Andrew Stromme, Ryan Carlson and Tia Newhall</td>
<td></td>
</tr>
</tbody>
</table>