# DPDNS 2011 Tentative Program

**9:45am – 10:00am Opening Remarks**

**10:00am – 11:30am Network Algorithms**

10:00am "Solving k-Set Agreement with Stable Skeleton Graphs", Martin Biely (EPFL and Technische Universität Wien), Peter Robinson (Nanyang Technological University) and Ulrich Schmid (Technische Universität Wien)

10:30am "Compact Route Computation: Improving Parallel BGP Route Processing for Scalable Routers", Xuezhi Jiang, Mingwei Xu and Qi Li (Tsinghua University)

11:00am "Towards Persistent Connections using Failure Detectors", Naohiro Hayashibara (Kyoto Sangyo University)

**11:30am – 12:40pm Lunch Break**

**12:40pm – 1:40pm Keynote Speech "Fault tolerance for High Performance Computing Applications in Hostile Environments: Exascale and Cloud", Franck Cappello (INRIA and University of Illinois at Urbana-Champaign)**

**1:40pm – 3:10pm Cloud Computing**

1:40pm "A Monitoring and Audit Logging Architecture for Data Location Compliance in Federated Cloud Infrastructures", Philippe Massonet, Syed Naqvi, Christophe Ponsard (CETIC), Joseph Latanicki (Thales Theresis), Benny Rochwerger (IBM Haifa) and Massimo Villari (University of Messina)

2:10pm "Dependable Autonomic Cloud Computing with Information Proxies", Deger Cenk Erdil (Istanbul Bilgi University)

2:40pm "A Fault-tolerant High Performance Cloud Strategy for Scientific Computing", Ekpe Okorafor (African University of Science and Technology)

**3:10pm – 3:30pm Coffee Break**

## 3:30pm – 5:00pm High Performance Computing

3:30pm "Evaluation of Simple Causal Message Logging for Large-Scale Fault Tolerant HPC Systems", Esteban Meneses (University of Illinois at Urbana-Champaign), Greg Bronevetsky (Lawrence Livermore National Laboratory) and Laxmikant V. Kalé (University of Illinois at Urbana-Champaign)

4:00pm "Building a Fault Tolerant MPI Application: A Ring Communication Example", Joshua Hursey and Richard Graham (Oak Ridge National Laboratory)

4:30pm "Algorithm-Based Recovery for Newton's Method without Checkpointing", Hui Liu, Teresa Davies, Chong Ding, Christer Karlsson and Zizhong Chen (Colorado School of Mines)

**5:00pm – 5:20pm Coffee Break**

## 5:20pm – 6:20pm Failure Analysis

5:20pm "Predicting Node Failure in High Performance Computing Systems from Failure and Usage Logs", Nithin Nakka (University of Illinois at Urbana-Champaign), Ankit Agrawal and Alok Choudhary (Northwestern University)

5:50pm "Achieving Target MTTF by Duplicating Reliability-Critical Components in High Performance Computing Systems", Nithin Nakka (University of Illinois at Urbana-Champaign), Alok Choudhary (Northwestern University), Gary Grider,

John Bent, James Nunez and Satsangat Khalsa (Los Alamos National Laboratories)

## 6:20pm – 6:30pm Concluding Remarks