

Monday
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7:30-8:30 Breakfast
8:30 intro/participants

5 minutes/person

10:15 Coffee

10:35
Energy-Performance Tradeoffs in Multilevel Checkpoint Strategies
Leonardo A. Bautista-Gomez, ANL

10:55
APIs, Architecture and Modeling for Extreme Scale Resilience
Kento Sato, LLNL

11:15
Portable Programming and Runtime Support for Application-Controlled Resilience
Andrew Chien, U Chicago/ANL

11:35
1. Open Discussion: "Of Apples, Oranges and (Non-)reproducibility" (Frank)
API/resilience benchmarks

12:15-2:00 Lunch

2:00

2:00
MPI Fault Tolerance: The Good, The Bad, The Ugly
Martin Schulz, LLNL

2:20
Supporting the Development of Resilient Message Passing Applications
Christian Engelmann, ORNL

2:40
Fault Tolerance for Remote Memory Access Programming Models
Torsten Hoefler, ETH

3:00
Application level asynchronous checkpointing/restart: first experiences with GPI
Gerhard Wellein, Uni Erlangen

3:30 Break

3:50
2. Open Discussion: (Alexander)
HPC Resilience methods/MPI std/PGAS/map reduce+YARN

6:00 Dinner

After Dinner Discussion: "Watch Out: Grand Challenges in Resilience"

Tuesday
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8:30
Operating System Support for Redundant Multithreading
Bjoern Doebel, TU Dresden

8:50
Resilient gossip algorithms for online management of exascale clusters
Amnon Barak, Hebrew U

9:10
FFMK: Towards a fast and fault-tolerant micro-kernel-based Operating System
Hermann Haertig, TU Dresden

9:30
3. Open Discussion: "Holistic Model" (Hermann)

10:15 Break

10:35
Memory Errors in Modern Systems
Vilas Sridharan, AMD

10:55
Fault Tolerance for Iterative Linear Solvers
James Elliott, NCSU+SNL

11:15
Scalable Fault Tolerance at the Extreme Scale
Zizhong (Jeffrey) Chen, UCR

11:35
3. Open Discussion: "Soft Errors" (Satoshi)

12:15-2:00 Lunch

2:00
Algorithms for coping with silent errors
Yves Robert, ENS Lyon & Univ. Tenn. Knoxville

2:20

Assessing the impact of composite strategies for resilience
George Bosilca, U Tennessee

2:40
Leveraging PGAS Models for Hard and Soft Errors at Scale
Abhinav Vishnu, PNNL

3:30 Coffee

3. Open Discussion: "Soft Errors" (Satoshi) continued (as necessary)

6:00 Dinner

cont. After Dinner Discussion: "Watch Out: Grand Challenges in Resilience"

Wednesday
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Abstractions and mechanisms for proportional resilience
Mattan Erez, UT Austin

A Non-checkpoint/restart, Non-algorithm-specific Approach to Fault-tolerance
Dorian Arnold, UNM

Dynamic Resource Management and Scheduling for Fault Tolerance
Felix Wolf, GRS Aachen

6. Open Discussion: Monitoring and Prediction / cont. Grand Challenge Resilience

12:15-2:00 Lunch