



Future Power Grid Initiative



## 1st International Workshop on High Performance Computing, Networking and Analytics for the Power Grid

Seattle, WA, USA, November 13, 2011

### AGENDA

TIME	TOPIC	LOCATION
<b>8:30 – 8:40 am</b>	Opening Remarks Daniel Chavarria, Pacific Northwest National Laboratory	Discovery A room
<b>8:40 – 9:30 am</b>	Keynote Address Daniel Kirschen, University of Washington	Discovery A room
<b>9:30 – 10:30 am</b>	Session 1: Methods	Discovery A room

1. Victor Zavala (ANL) and Brett Robbins (Univ. of Illinois Urbana-Champaign).  
“Convergence Analysis of a Parallel Newton Scheme for Dynamic Power Grid Simulations”

2. Florent Pruvost, Pascal Laurent-Gengoux, Frederic Magoules, Francois-Xavier Bouchez (Ecole Centrale Paris). “Speed-up the Computing Efficiency of Waveform Relaxation Method for Power System Transient Stability”

For further information, please visit [GridOPTICS.pnnl.gov](http://GridOPTICS.pnnl.gov)

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TIME	TOPIC	LOCATION
<b>10:30 – 11:00 am</b>	Break	
<b>11:00 am – 12:00 pm</b>	Methods, part 2	Discovery A room

1. Shrirang Abhyankar, Alexander Flueck, Xu Zhang (Illinois Institute of Technology), Hong Zhang (ANL). “Development of a parallel three-phase transient stability simulator for power systems”

2. Christopher Parmer (McGill Univ.), Eduardo Cotilla-Sanchez (University of Vermont), Heidi Tornquist (SNL), Paul Hines (University of Vermont). “Developing a Dynamic Model of Cascading Failure for High Performance Computing using Trilinos”

TIME	TOPIC	LOCATION
<b>12:00 – 1:30 pm</b>	Break	
<b>1:30 – 3:00 pm</b>	Session 2: Applications	Discovery A room

1. Alexandru Cioaca (Virginia Tech), Victor Zavala, Emil Constaninescu (ANL). “Adjoint Sensitivity Analysis for Numerical Weather Prediction: Applications to Power Grid Optimization”

2. Jagabondhu Hazra, Kaushik Das, Deva Seetharam, Amith Singhee (IBM). “Stream computing based synchrophasor application for power grids”

3. Kalyan Perumalla, James Nutaro, Srikanth Yoginath (ORNL). “Towards High Performance Discrete-Event Simulations of Smart Electric Grids”

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TIME	TOPIC	LOCATION
<b>3:00 – 3:30 pm</b>	Break	
<b>3:30 – 5:00 pm</b>	Session 3: Networks, Platforms & Frameworks	Discovery A room

1. Selim Ciraci, Bora Akyol (PNNL). “An Evaluation of the Network Simulators in Large-Scale Distributed Simulations”
2. Shirang Abhyankar (Illinois Institute of Technology), Barry Smith, Hong Zhang (ANL), Alexander Flueck (Illinois Institute of Technology). “Using PETSc to develop scalable applications for next-generation power grid”
3. Stef Salvini, Piotr Lopaka, David Wallom (University of Oxford). “A hardware and software computational platform for the HiPerDNO (High Performance Distribution Network Operation) project”