

Blue Waters: An Extraordinary Research Capability for Advancing Science & Engineering

Frontiers in Computational and Information Sciences
Seminar Series

Presented by...

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Abstract: Dr. Dunning will talk about the new supercomputer Blue Waters and its proposed use by the science and engineering community.

A dramatic increase in computing capability has the potential to create breakthrough advances in all fields of science and engineering, including predicting the behavior of complex biological systems, understanding the production of heavy elements in supernovae, designing catalysts and other materials at the atomic level, predicting changes in the earth's climate and ecosystems, and designing complex engineered systems from chemical plants to airplanes. However, achieving these breakthroughs requires a computing system capable of answering the most compute-, memory- and data-intensive research questions.

The Office of Cyberinfrastructure in the National Science Foundation is funding the acquisition and deployment of an extraordinary new supercomputing system at the National Center for Supercomputing Applications (NCSA) on the campus of the University of Illinois at Urbana-Champaign. This system, called Blue Waters, is based on the latest computing technology under development by IBM for DARPA's High Productivity Computing Systems Program, including the Power7 processor with a peak performance of a quarter of a teraflop and a new communications hub chip with a total bandwidth of more than one terabyte/sec. Blue Waters will be installed in NCSA's National Petascale Computing Facility in 2011.

More info:

<http://computerlectures.pnl.gov>

<http://www.iacat.uiuc.edu/>

Date: Feb. 25

Location: EMSL
Auditorium

Time: 1:00 pm