



*Blue Gene/P*

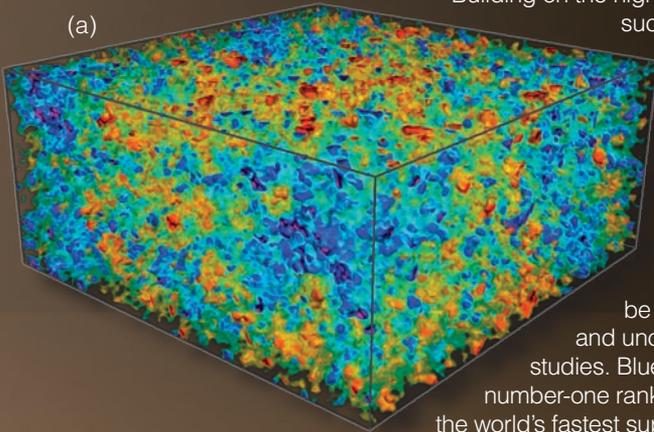
**ASC Dawn  
Sequoia Initial Delivery**

*Dedication Ceremony*

## Dawn—500 teraFLOPS to prepare the applications foundation for multi-petaFLOPS computing on Sequoia

A new era in scientific computing will begin at the three National Nuclear Security Administration (NNSA) laboratories when the Advanced Simulation and Computing (ASC) Program's Sequoia brings its 20-quadrillion-operations-per-second computing power to serve the mission and thus continue to ensure the safety and reliability of the nation's nuclear deterrent without any future testing.

We are here today to celebrate the delivery of Dawn, the first of two major deliveries under the Sequoia contract, and to celebrate the partnership with IBM, a company that has stood with the ASC Program for twelve years, faithfully serving ASC and national security.



(a)

Building on the high-performance computing

success of Blue Gene/L,

Dawn (a Blue Gene/P

system) will serve

primarily as a bridge to

accelerate the scaling

and tuning of key

petascale applications

on Sequoia (a third-

generation Blue Gene

system). Dawn will also

be used for weapon science

and uncertainty quantification

studies. Blue Gene/L, which held the

number-one ranking on the Top500 of

the world's fastest supercomputers for seven

consecutive lists (2004–2007), continues to serve ASC effectively.

(a) Visualization of an early ASC Dawn-sized simulation. (Electron potential in a 140-million-particle simulation of a 5-kilo-electron-volt plasma comprised of deuterium/tritium and 3.5-million-electron-volt alpha particles, being heated by an argon beam.) (b) Delivery of Dawn, a 500-teraFLOPS system, began on January 20, 2009.

(b)





# Blue Gene/P

## ASC Dawn Initial Delivery System Dedication Ceremony

May 27, 2009, 10:30 a.m.–11:45 a.m.  
Building 453, Lawrence Livermore National Laboratory (LLNL)

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### Welcome and Introduction

**Bruce T. Goodwin**, Principal Associate Director  
Weapons & Complex Integration, LLNL

### Speakers and Presentations

**George H. Miller**, Director, LLNL

**Alice C. Williams**, Manager, Livermore Site Office

### ASC Video

**Dimitri Kusnezov**, Director, Office of Research and Development  
for National Security, Science & Technology

**John Kelly III**, Senior Vice President and Director  
IBM Research

**Rodney C. Adkins**, Senior Vice President  
Development and Manufacturing  
IBM Systems and Technology Group

### Closing Comments

**Bruce T. Goodwin**

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**Reception immediately following**

