### Welcome to the

DOE/DOD Workshop on Emerging Architectures & Applications

#### Workshop Sponsors

- Fred Johnson, Advanced Scientific Computing Research, DOE
- Candy Culhane, DOD

#### Logistics Organizer

– Margaret Lyday, ORISE

#### • Workshop Organizing Committee

- Bill Carlson (CCS)
- Bruce Hendrickson (SNL)
- John Johnson (LLNL)
- Mike Merrill (DOD)
- Jarek Nieplocha (PNNL)
- Lenny Oliker (LBL)
- Jeff Vetter (ORNL)

Me!

# Principal Workshop Goal

• Determine what (if any) impact XMT and Cell-based supercomputers (and successors) could have on DOE and DOD applications.

## How to Achieve This Goal?

- (1) Identify applications that could benefit from HPC, but which for which current supercomputers are a poor match.
- (2) Determine which aspect(s) of these computations are holding them back.Computational Scientists

(3) Evaluate whether XMT or Cell machines would overcome these challenges.

(4) Dialogue & interactivity!

## An Invitation

- We've undoubtedly missed important potential applications.
- Room on schedule Friday morning for a few more application talks.
  - Talk to me during a break
- Note: please don't talk about your successes. Instead, we want to know what your community can't do but wishes it could.