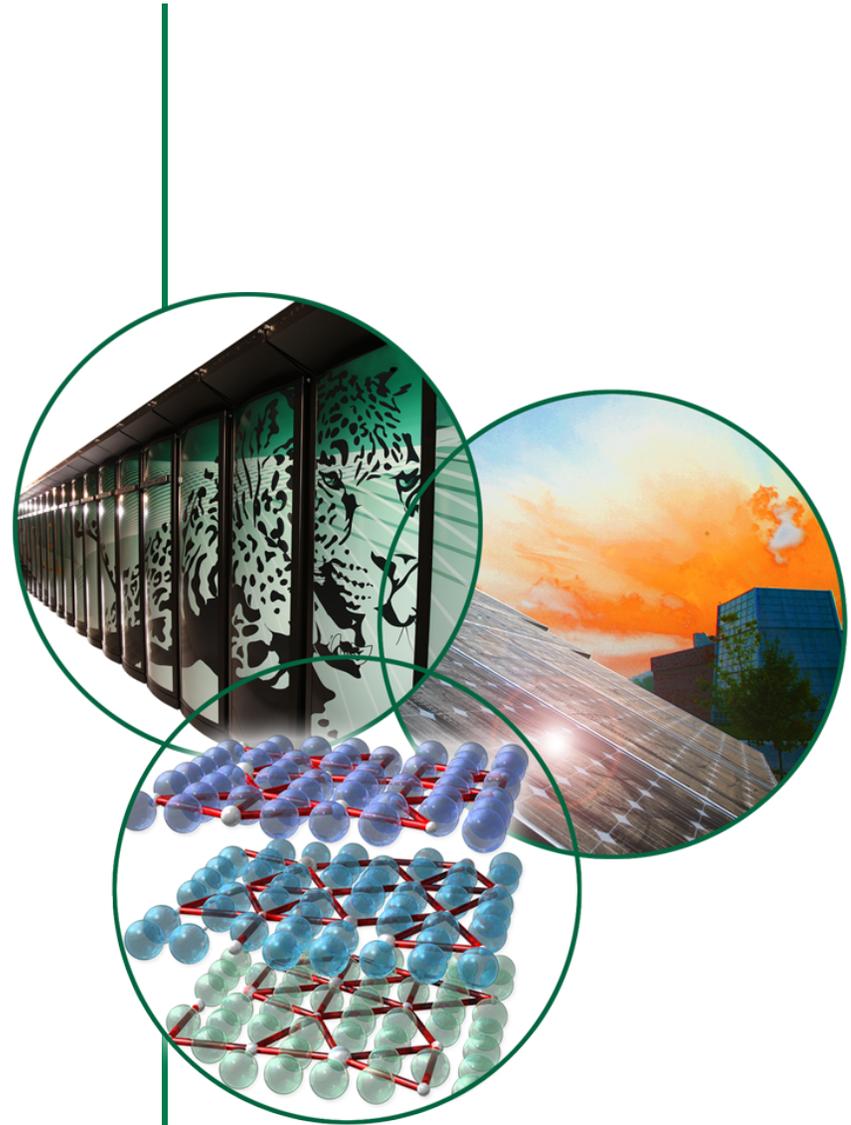


# SciDAC-3 Institutes Call Lab 11-505

Barney Maccabe

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U.S. DEPARTMENT OF  
**ENERGY**

 **OAK RIDGE NATIONAL LABORATORY**  
MANAGED BY UT-BATTELLE FOR THE DEPARTMENT OF ENERGY

# The is the Institute Call

- **The mission of the SciDAC Institutes is to:**
  - provide intellectual resources in applied mathematics and computer science, expertise in algorithms and methods, and scientific software tools,
  - advance scientific discovery through modeling and simulation
  - in areas of strategic importance to the Office of Science and the National Nuclear Security Administration (NNSA).
- **Targeted platforms**
  - OLCF, ALCF, NERSC, and similar world-class computing facilities
  - over the next 5 years
- **Funding opportunities for SciDAC science domains will be announced later (expected late spring-early summer)**

# Metrics

- **Extent to which deliverables are used by application scientists**
- **Extent to which Institute researchers actively collaborate and leverage their experience to achieve that success**
- No metric for computer science or mathematics contributions
- Institutes should emphasize *services* provided to applications

# Institute-, Architecture-, and Application-Awareness

- **Institute-aware**
  - Define relationships to other expected institutes
  - SAPs to address application specific needs and to span institutes
- **Architecture-aware**
  - Laundry list of key computer science and math issues to address in the institute
- **Application-aware**
  - intellectual resources and tools to meet cross-cutting or core computational science needs for DOE and SC missions
  - *stunts* may be needed to attract domain scientists, but
  - Emphasis is on realistic, full-scale applications or data sets

# Management Structure

- **Institute Director**
  - POC for DOE Program Officer (Polansky)
  - Lead PI for the Institute, employed by the lead institution
- **Principal Investigator**
  - authority and responsibility for the proper conduct of the research within an organization
- **Senior Personnel**
  - contributes in a substantive, measurable way to the scientific/technical development or execution of the project
  - Includes Institute Director and PIs
- **Institute Directors Executive Council**
  - coordination and communication among the Institutes

# Supplemental Information

- ... in 2006, and the partnerships were extended to include the DOE National Nuclear Security Administration (NNSA) and the National Science Foundation (NSF).
- ... transitioning basic research in applied mathematics and computer science to applications in targeted areas by direct engagement with the applications in the SciDAC Science Application partnerships....
- A desired outcome of these new SciDAC projects is the marked improvement in collaborations among Institutes participants and their domain-science partners.
- Partners include: BES, BER, FES, and HEP & NP

# Expectations

- **Program**
  - Institutes are funded for 5 years
  - \$13M / year is available
  - 1-5 Institutes funded
  - Each Institute is comprised of several awards
    - Most likely is one award per organization, possibly more
- **ORNL**
- **4-5 ORNL led proposals**
- **10-15 Partner proposals**

# Relationship Complexities

- **SciDAC partners well established, program started in 2001**
- **Natural relations to DOE SC Facilities (OLCF, ALCF, and NERSC)**
- **SPEC partnership is another natural partnership**

# Letter of Intent

“... used to organize and expedite the merit review process.... strongly encouraged, but not required....”

- An LOI is **REQUIRED** for all ORNL submissions, including proposals directed by other institutions
- All LOI's will be submitted to Headquarters through the division office
- Due dates
  - Monday March 7: LOI template will be provided
  - Friday, March 18: LOI draft due in CSMD office by noon
  - Monday, March 28: Final LOI due in CSMD office by 9am

# **Deadlines for ORNL Led Proposals (subject to change)**

- **March 25** Initial budget in ePlan
- **March 30** Initial project description in ePlan
  - LOI's will not be submitted until this is done
- **April 8** Red Team reviews scheduled
- **April 25** Everything but final narrative
  - CVs, C&P, facilities, budget pages, budget justifications
- **April 20, 21, 25** Red Team Reviews
- **April 28** Final narrative due in division office
- **May 2** 9am Final proposals submitted to DOE ORO

# Other Deadlines

- **April 18** CVs and C&P in division office for anyone involved in a proposal
- **April 18** ORNL Facility statement will be available
- **April 21** non-ORNL led proposals must be complete

- **Internal web page**  
<http://www.csm.ornl.gov/IAO/SciDAC3.html>