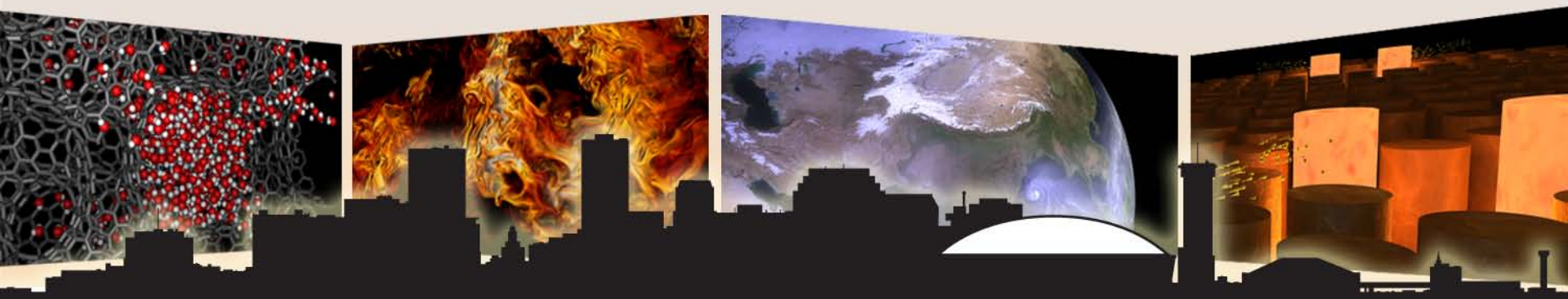
Research Alliance in Math and Science

Presented by

Debbie McCoy

Computing and Computational Sciences



Research Alliance in Math and Science (RAMS) Program

The Research Alliance in Math and Science Program is designed to provide collaborative research experiences among faculty and students at colleges or universities and DOE national laboratory researchers. These experiences will improve the U.S. competitive research edge while encouraging and promoting Science, Technology, Engineering, and Mathematics (STEM) research throughout the academic year.

Research Alliance in Math and Science (RAMS) Program

Class of 2009

Class of 2009 summer interns outside the cafeteria on the modern ORNL campus with research mentors, visiting faculty members, and Drs. Michael Strayer and Jeff Nichols

Research Alliance in Math and Science (RAMS) Program

Targets underrepresented students majoring in computer science, computational sciences, mathematics, engineering, technology

- 10 –12 weeks (May/August)
- World-class research mentors
- Competitive stipend/housing allowance
- State-of-the-art distance learning
- Daily journal of activities and experiences
- Weekly technical seminars
- Skills-enhancing workshops
- Oral presentation of research results
- Project poster sessions
- Recognition banquet
- May arrange academic credit through college or university

Research Alliance in Math and Science (RAMS) Program

Research opportunities:

Summer student poster presentations in JICS lobby

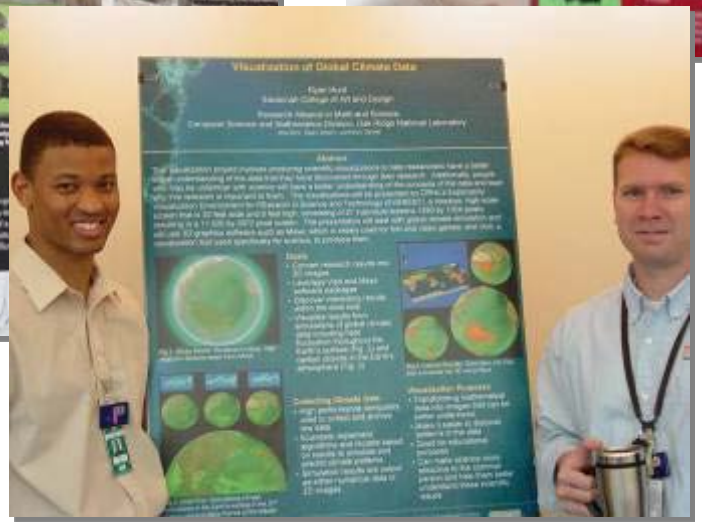
Research Alliance in Math and Science Program

http://computing.ornl.gov/internships/rams/posters/

- Computer Science
- Algorithms and Theory
- Artificial Intelligence
- Communications and Networking
- Computational Biology
- Computer Architecture
- Data Management
- Distributed and Fault-Tolerant Computing
- Graphics and Visualization
- Human Computer Interaction
- Knowledge Discovery/Data Mining
- Mobile Computing
- Multimedia
- Natural Language Processing
- Operating Systems
- Performance Modeling and Analysis
- Programming Languages and Software Engineering
- Security
- User Interface
  - Data Storage
  - Hardware Technologies
  - Mathematical Sciences
- Dynamical Systems
- Mathematical Modeling
- Numerical Methods
- Operations Research
- Probability and Statistics
- Risk Management
- Stochastic Optimization. . . more

Research Alliance in Math and Science (RAMS) Program

Summer student opportunities: Poster sessions



Fortran for High Performance Computing taught by John Levesque

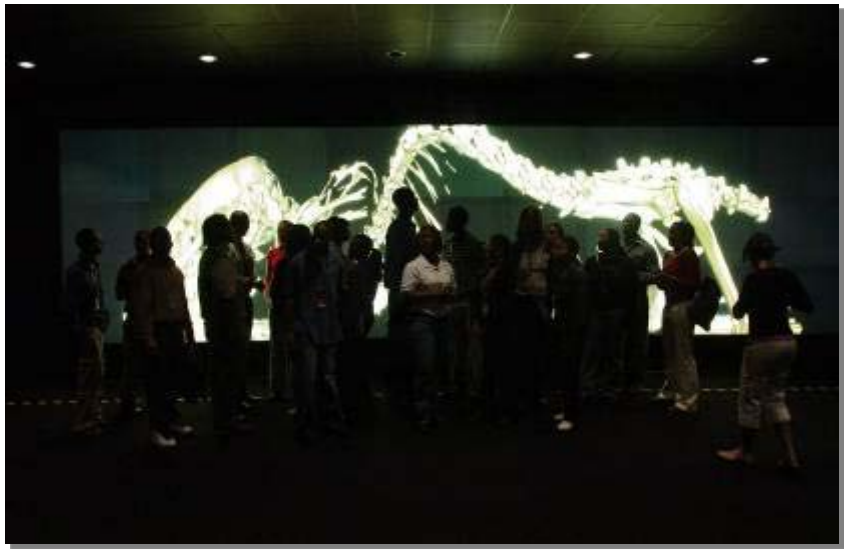
Research Alliance in Math and Science (RAMS) Program

Summer student opportunities:

Tour $1B+ Spallation Neutron Source

Research Alliance in Math and Science (RAMS) Program

Summer student opportunities:



Tour Exploratory Visualization Environment for Research in Science and Technology (EVEREST)

Opportunities in visualization, applied mathematics, networking research, computer science, computational biology, computational chemistry, computational materials science

Research Alliance in Math and Science (RAMS) Program

Summer student opportunities:

National Center for Computational Sciences

Research Alliance in Math and Science (RAMS) Program

Summer student opportunities:

High Temperature Materials Laboratory

Biomedical engineering students examine ceramic replacement joints developed at ORNL's High Temperature Materials Laboratory

Research Alliance in Math and Science (RAMS) Program

Summer student opportunities:

Tour
High Flux Isotope Reactor facility

Research Alliance in Math and Science (RAMS) Program

Requirements:

- Completed on-line application (registration website is open)
- Completed research proposal (students are encouraged to iterate research proposal with his/her faculty advisor)
- Two faculty recommendations completed online
- Official transcript
- Commitment for full participation

Contact: Debbie McCoy

Research Alliance in Math and Science (RAMS) Program
Oak Ridge National Laboratory
P.O. Box 2008
Oak Ridge, TN 37831-6163
Phone: (865) 574-6185
Fax: (865) 574-4839
Email: mccoydd@ornl.gov

http://computing.ornl.gov/internships/rams.html