

## **Research Alliance in Math and Science**

<http://www.csm.ornl.gov/Internships/RAMS.html>

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### **Summary**

The Research Alliance in Math and Science (RAMS) program is carried out through the Computing and Computational Sciences Directorate at the Oak Ridge National Laboratory (ORNL) for the Mathematical, Information, and Computational Sciences Division of the U. S. Department of Energy's Office of Advanced Scientific Computing Research. The RAMS program continues to provide unique, hands-on educational experience through innovative approaches to underrepresented students majoring in mathematics, computer science, engineering technology, and the computational sciences.

Twenty students from 13 colleges and universities were selected for 2006 summer internships through the Research Alliance in Math and Science program. These students were placed with ORNL's research staff to be mentored based, in part, on their written proposal submitted as part of their application package. Mentor/student assignments are made based on best matches between on-going projects, staff, and students. Student application packages are individually evaluated, and each student is matched with his or her mentor based on not only the scientific discipline and research proposal, but also on other individual characteristics such as evidence of personality, self-discipline, personal motivation, background, and prior experience.

Dr. John Levesque, Director of the Center taught the 2006 interns a specialized class in FORTRAN over the course of the summer. Dr. Levesque lectured twice a week and the students were given homework assignments geared specifically toward improving their programming skills for the high-

performance computing resources at the LCF. Students could be granted academic credit for the course through their faculty advisor.

The Cray Center of was established in 2005 for closer collaboration between the users of the LCF resources, ORNL, and Cray Inc



*Dr. John Levesque, Director of the Cray Center of Excellence in the Leadership Computing Facility, National Center for Computational Sciences at the Oak Ridge National Laboratory gives the 2006 RAMS students an introduction to Fortran for High Performance Computing.*

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*Pictured from left to right are Erin Lennartz, Christopher Rann, Jason Roop, Christopher Fuller, and Nekkion Crowder. The FORTRAN programming class taught at ORNL met twice a week for lecture and included homework assignments.*

Students participating in the 2006 summer internship program are Jana Black – University of Tennessee, mentored by Al Geist; Jarett Collins – Fisk University, mentored by John Cobb and Gregory Pike; Nekkion Crowder – Fisk University, mentored by Sean Ahern, Pat Richardson, and Jamison Daniel; Paul Donnelly – University of Tennessee, mentored by Mallikarjun Shankar; James Fletcher – Alabama A&M University, mentored by Phani Nukala; Christopher Fuller – Winston Salem State University, mentored by Auroop Ganguly; Ryan Hurd – Savannah College, mentored by Sean Ahern and Jamison Daniel; Yasmin Jackson – Alabama A&M University, mentored by Arnold Tharrington; Quentoria Leeks – Fisk University, mentored by Ron Parr, Jim Pearce, and John Drake; Erin Lennartz – Virginia Tech, mentored by Richard Ward and Kara Kruse; Lionel Lovett – Jackson State University, mentored by George Ostrouchov and Houssain Kettani; Jessica McGarity – Wofford College, mentored by Michael Leuze, Nagiza Samatova, and Audrey Gorin; Elizabeth O’Quinn – Wofford College, mentored by Kara Kruse and Richard Ward;

Jonathan Rann – Winston Salem State University, mentored by Pratul Agarwal; Angela Reedy – Alabama A&M University, mentored by Kara Kruse and Richard Ward; Jason Roop – North Carolina Central University, mentored by Kalyan Perumalla; Kathryn Walker – Knoxville College, mentored by Michael Leuze, Nagiza Samatova, and Audrey Gorin;; Jessica Williams – Savannah College, mentored by Thomas Schulthess; Shana Woods – Alabama A&M University, and Albert Wynn – Florida A&M University, mentored by Jacob Barhen.

Additional information on the 2006 RAMS program, student projects, and photographs from tours and events can be accessed at: [http://www.csm.ornl.gov/Internships/RAMS\\_06](http://www.csm.ornl.gov/Internships/RAMS_06).

**For further information on this subject contact:**

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