

July, 2007

OSP Monthly



Office of Sponsored Projects, 1027 University Circle Ogden, UT 84408-1027
<http://weber.edu/OSP/default.html>

NASA-MDAP (MARS)

Dr. John Armstrong
Physics
Weber State University

What does the search for water on Mars have in common with the search for life in the Galaxy? Weber State Undergraduates are going to find out.

Students involved with two projects at Weber State, using the Ott Planetarium super-computer and the resources of the new Computational Physics Lab, will search for water in Mars' polar regions and help NASA predict what earth-like planets around other stars might look like.

"This is exciting work for our students," says Dr. John Armstrong, Principle Investigator on the two projects recently awarded by NASA funding agencies, "They are working on the forefront of research to answer the question 'are we alone?'"

Last October, with the help of Congressman Rob Bishop, the Ott Planetarium installed the Workhorse Supercomputer, providing computing resources 100 times greater than Weber's previous computer cluster. Leveraging those resources for other projects, Armstrong and his student plan to use the computers to analyze data from Mars and model the environments of planets around other stars.



Funding Opportunities

Funding opportunities are available! Click on the link to see current opportunities:

<http://weber.edu/OSP/links.html>

UPDATED DAILY!

Funded by NASA's Astrobiology Institute, the Virtual Planetary Laboratory Community Tools will provide researchers from around the world access to a suite of software tools used to model planetary climates. To extend the scope and power of this project, computer science student Walter Scott is developing a platform for distributing the models on remote computers. Based on the software used by the popular SETI@Home, this will allow volunteers to donate computer time for modeling extrasolar planets as well as allow researchers to submit their own planetary models.

As part of these projects, Weber State has hired physics undergraduate Rhett Zollinger as technical support for high performance computing. Combined with the Beischline fellowship, he will train in the use and maintenance of the system while continuing his own research in modeling extrasolar planetary systems.

As part of NASA's Mars Data

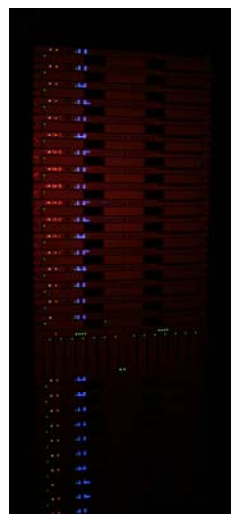


Computer Science student, Walter Scott



Physics undergraduate, Rhett Zollinger

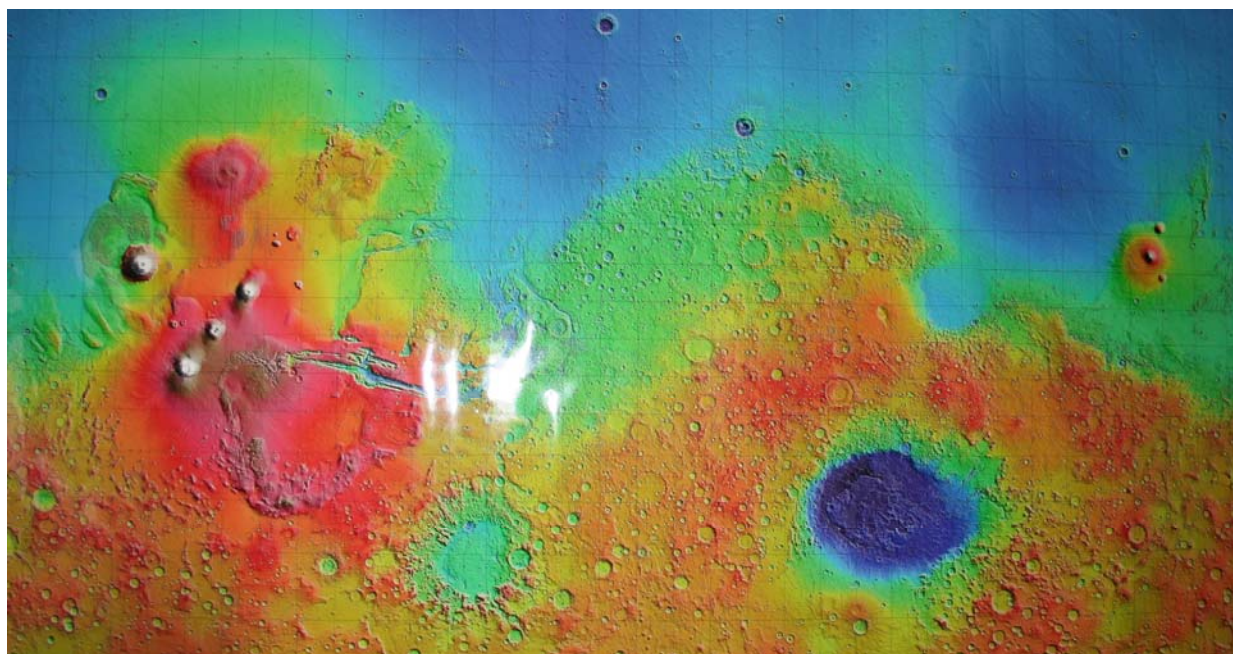
The Workhorse provides 100 times more computing resources than previously available at Weber.



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Analysis Program, Stan Nielson, an undergraduate specializing in Geographic Information Systems (GIS) and cartography, is cataloging craters in Mars' northern pole. Using software purchased and maintained by Weber State's Geospatial & Environmental Applied Research (GEAR) Lab, Nielson's work will help identify water deposits within polar craters, helping to constrain formation models and supporting future work for resource utilization by humans on Mars. This two-year project will extend to the southern hemisphere and use data from four orbiting probes: Mars Global Surveyor, Mars Odyssey, Mars Express, and Mars Reconnaissance Orbiter.

Students interested in this research may contact John Armstrong (jcarmstrong@weber.edu) for more information about how to get involved, or visit the Ott Planetarium (weber.edu/planetarium) and Weber's Scientific Analysis and Visualization Initiative (savi.weber.edu).



This map of the Martian surface topography covers the wall in Dr. Armstrong's office, sparking conversation and contemplation of Mars surface geology.

National Science Foundation Funding Opportunities

Agency: National Science Foundation

Next Deadline: Aug 17, 2007

Synopsis: Supports about 15 awards annually for groups of researchers in mathematical sciences responding to recognized scientific needs of pressing importance, taking advantage of current scientific opportunities, or preparing the ground for anticipated significant scientific developments. May include researchers from other science & engineering disciplines. Deadline refers to required letters of intent, full proposals due 9/21/07.**Link:**

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5671&org=DMS

Agency: National Science Foundation

Next Deadline: August 7, 2007

Synopsis: Supports acquisition, development, enhancement, & operation of research infrastructure that enables discovery, learning, and innovation in all computing fields supported by CISE. Three types of awards: Infrastructure Acquisition (up to \$2 million), Community Resource Development (up to \$2 million), and Planning (up to \$50,000 for a single institution and up to \$100,000 for multi-institution). Deadline refers to full proposals. Optional letters of intent due by 07/02/07.

Link:

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12810&org=NSF&from=fund

Agency: National Science Foundation
Next Deadline: Sep 20, 2007
Synopsis: Supports the initial phases of developing & coordinating integrated research & education activities with foreign partners. Support is primarily for travel & subsistence expenses; salaries & stipends not typically supported. Target dates refer to Workshop proposals. Planning Visit proposals accepted any time. See

Link:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12815&org=NSF&sel_org=NSF&from=fund

Agency: National Science Foundation
Next Deadline: Sep 25, 2007
Synopsis: Supports basic research on the character & dynamics of Earth's mantle & core, their influence on the evolution of Earth as a whole, & processes operating within the deep interior that affect/are expressed on Earth's surface. Projects may employ any combination of field, laboratory, & computational studies with observational, theoretical, or experimental approaches. Multidisciplinary work required. See

Link:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11702

Agency: National Science Foundation
Next Deadline: Aug 27, 2007
Synopsis: Supports Demonstration Projects (up to \$250,000 each over 1 to 2 years) that are exploratory in nature & have the potential to serve as pathfinders to effective larger-scale implementation activities and Implementation Projects (up to \$1 million each over 2 to 3 years) that are larger in scope & are expected to deliver sustainable learning & workforce development activities that complement ongoing NSF investment in cyberinfrastructure. See

Link:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12782&from=fund

Agency: National Science Foundation
Next Deadline: September 13, 2007
Synopsis: Supports projects that develop & implement informal learning experiences to increase interest, engagement, & understanding of science, technology, engineering, & math (STEM). Projects should advance theory/practice of ISE and may target public audiences / professionals whose work affects informal STEM learning. Planning, Conference, & Symposia proposals accepted any time. Deadline refers to required preliminary proposals for Project Grants.

Link:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5361&org=ESIE&from=home

Agency: National Science Foundation
Next Deadline: Aug 23, 2007
Synopsis: Louis Stokes Alliances for Minority Participation (required letters of intent due 6/25, full proposals due 10/12/07), Educational Research Projects (10/12/07 deadline), and Alliances for Graduate Education & the Professoriate (8/23/07 deadline) seek to increase the number of students successfully completing quality degree programs in STEM fields. Particular emphasis is placed on supporting groups that historically have been underrepresented in STEM.

Link:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13646&org=NSF&sel_org=NSF&from=fund

Agency: National Science Foundation
Next Deadline: Sep 14, 2007
Synopsis: Supports research on environmental change in polar regions, human & biotic systems in polar regions, & education & outreach. Projects are expected to be interdisciplinary in scope; involve a pulse of activity during the IPY period; leave a legacy of infrastructure and data; expand international cooperation; engage the public in polar discovery; & help attract the next generation of scientists and engineers. 9/14/07 deadline applies only to projects on humans in polar regions. See

Link:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501036&org=NSF&sel_org=NSF&from=fund

Funding Agencies
















-  Applied Science and Technology
-  Arts and Humanities
-  Business and Economics
-  Education
-  Health Professions
-  Other Funding Opportunities
-  Sciences
-  Social & Behavioral Sciences
-  Student Services

Please see next page for calendar.












Office of Sponsored Projects

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 Tony Aragon, Administrator
 Ava Painter, Administrator
 Ramona Sessions, Contract Analyst
 Susan Wood, Office Specialist

August, 2007

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September, 2007

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