



The National Computational Science Institute:

*An Undergraduate Initiative of
The Shodor Education Foundation and
The National Computational Science Education
Consortium*

The Shodor Education Foundation announces the creation of **The National Computational Science Institute (NCSI)**. The purpose of NCSI is to introduce the hands-on use of computational science, numerical models, and data visualization tools across the curriculum. The National Science Foundation has awarded a three-year, \$2.75M grant (Award Number: DUE-0127488) enabling NCSI to offer a national set of in-person, video-conferenced, and web-accessible workshops, seminars, and support activities. The initial target audience for NCSI are teams of faculty from predominantly undergraduate institutions (PUI's), minority serving institutions (MSI's), and community colleges whose students are either the next generation of scientists and engineers, the next generation of K-12 teachers, or both. With supplemental funding, NCSI plans to offer computational science workshops and sponsor educational activities for in-service teachers, business and government leaders, and the general public. NCSI participants will then assist others on their own campuses and at neighboring institutions to introduce computational science in their own classes. NCSI will proceed along three synergistic but distinct routes that can be modeled as **PULL, PUSH, and PERMEATE**.

Regionally distributed workshops will **PULL** faculty within a reasonable travel distance for a week of intense interdisciplinary training, collaboration, and curriculum development in computational science. Participants will explore the use of modeling and visualization tools in existing courses, while stimulating creation of new courses and promoting new modes of undergraduate research. NCSI staff and participants will proactively **PUSH** computational science and computational science education onto the agendas of professional and discipline-specific societies, offer workshops, conduct tutorials, present papers and posters, and serve on program committees. To sustain these efforts, NCSI will **PERMEATE** on-going and proposed undergraduate curriculum efforts with computational science content. NCSI will develop and provide interdisciplinary and discipline specific web-accessible courses for faculty enhancement, such as *Computational Chemistry for Chemistry Educators*, and resources for interactive exploration including interactive curricula, problem-based modeling modules, tools, and tutorials. Shodor's award-winning Computational Science Education Reference Desk will serve as the organizing structure for dissemination of NCSI materials.

NCSI will operate in partnership with the Education, Outreach and Training Partnership for Advanced Computational Infrastructure (EOT-PACI), The National Center for Supercomputing Applications, the University of Illinois at Urbana-Champaign, Clemson University, Appalachian State University, the National Computational Science Education Consortium (NCSEC), the Burroughs Wellcome Fund, Sigma Xi, the North Carolina Supercomputing Center, and more than two dozen academic institutions, high performance computing centers and vendors.

For more information, please contact:

Dr. Robert M. Panoff, Director
The Shodor Education Foundation, Inc.
923 Broad Street, Suite 100
Durham, NC 27705

Phone: +1-919-286-1911
Fax: +1-919-286-7876
e-mail: rpanoff@shodor.org
<http://www.computationalscience.net>