



NAGT'S DISTINGUISHED SPEAKERS PROGRAM FOR 2007-2008

Leading geoscience
educators sharing
ideas, techniques,
and tools from
the frontiers of
teaching practice
and research



National Association of Geoscience Teachers
c/o Carleton College B-SERC
One North College Street
Northfield, MN 55057



NAGT'S DISTINGUISHED SPEAKERS PROGRAM FOR 2007-2008

Innovations in Geoscience Education

NAGT's Distinguished Speakers share innovative ideas, techniques, and tools forged at the frontiers of geoscience education and research — in public lectures, workshops, and consultations.

Invite an NAGT expert to your campus to inspire and inform your faculty and staff.

For more on the Distinguished Speakers Program, these speakers, and their leading-edge topics, visit:
www.nagt.org/nagt/programs/dsp.html

Follow the link to the online application.

Funding to offset speakers' travel expenses may be requested on the same form.

The National Association of Geoscience Teachers fosters improvement in the teaching of the earth sciences at all levels, emphasizes the cultural significance of the earth sciences, and disseminates geoscience knowledge to the general public.

NAGT counts among its members K-12 teachers and college and university faculty as well as educators working with the general public through outlets such as museums and science centers.



This year's speakers are cosponsored by the Joint Oceanographic Institutions.



TANYA ATWATER

- Ice ages, earthquakes, tsunamis and more: Bringing Earth processes alive with computer animations
- How the West was made: Using the last half billion years to illuminate continental plate tectonics
- Revealing the power of quantitative plate tectonics: Where oceanic and continental realms entangle

Professor of Tectonics, Dept. of Geological Sciences, University of California, Santa Barbara



ROBERT BUTLER

- Engaging secondary school students and non-science undergraduate majors in the National Science Foundation's EarthScope program

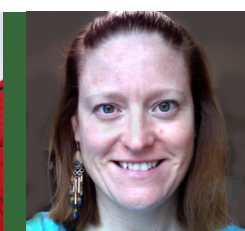
Professor of Science, Dept. of Physics, University of Portland, Oregon; former director of the Teachers on the Leading Edge collaborative, a K-12 Earth Science teacher professional development program



LUANN DAHLGREN

- Promoting a revolution in Earth and space science education: Strategies for increasing the rigor and perception of Earth science courses in high schools
- Adventures of an ANDRILLian: Geoscience research in Antarctica

Project Director, the Earth Exploration Toolbook and the National Model Earth Science Lab Course, Center for Earth and Space Science Education, TERC



TRACY GREGG

- Incorporating research in undergraduate and graduate classrooms
- Improving the undergraduate laboratory experience
- Including planetary data in core geoscience courses

Associate Professor, Dept. of Geology, College of Arts and Sciences, University of Buffalo, State University of New York



ERIC GROSFILS

- Computational science: An emerging tool for undergraduate exploration of complex geoscience problems
- Why one planet isn't enough: Engaging students in an introductory geology course
- Techniques for integrating student research in an undergraduate geology curriculum

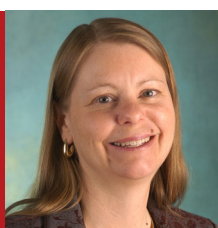
Associate Professor, Dept. of Geology, Pomona College, California



BRUCE HERBERT

- Developing student understanding of complex Earth systems
- Seeking synergy: Programs that integrate research and education
- Understanding student learning: Views from the learning and cognitive sciences

Associate Professor of Biogeochemistry; Associate Director of Geosciences, Information Technology in Science, Center for Learning and Teaching, Texas A&M University



JACKIE HUNTOON

- Broadening participation in the geosciences: Recruiting and retaining diverse graduate students
- Using field-based experiences to improve Earth science teacher training
- The role of assessment in geoscience education

Dean of the Graduate School and Professor of Geology, Dept. of Geology, Michigan Technological University



PATRICIA KELLEY

- Evolution and creation: Conflicting or compatible? (Public lecture)
- Teaching evolution with integrity and sensitivity (Workshop)
- The arms race from a snail's perspective: Evolution of the naticid gastropod predator-prey system (Research talk)

Professor of Geology, Dept. of Geography and Geology, University of North Carolina, Wilmington



JULIE LIBARKIN

- Development and use of the Geoscience Concept Inventory
- When wrong answers about student learning ask the right questions: Conceptual change and assessment in college science classrooms
- A thousand words: Assessment of alternative conceptions with student drawings

Assistant Professor, Dept. of Geological Sciences and Division of Science and Mathematics Education, Michigan State University



ELLEN METZGER

- Designing an introductory Earth science course for prospective teachers
- How Earth scientists can reach out to teachers: A model from the Bay Area Earth Science Institute (BAESI)
- Trends in Earth science education: Challenges and solutions

Professor of Geology and Science Education, Dept. of Geology, San José State University, California; Co-director, BAESI



STEPHEN POMPEA

- GLOBE at night: Starting and maintaining a Worldwide Citizen Science Project
- Starting an effective science outreach program: Is there an easy way?
- Sonification: How scientific data can become music — and teach!

Manager of Science Education, National Optical Astronomy Observatory, Tucson, Arizona



CHRISTINA RAVELO

- Global climate change: Lessons from ocean drilling and the discovery of Earth's geologic past

Professor of Ocean Sciences, University of California, Santa Cruz; Director of the Center on the Dynamics and Evolution of the Land-Sea Interface



DAVID STEER and DAVID MCCONNELL

- The tourist, the gun-slinger and the gardener: Rethinking metaphors of teaching and learning to enhance student reasoning
- Technology in support of effective pedagogy: Peer instruction, electronic

Associate Professor of Geology (David Steer) and Professor of Geology (David McConnell), Dept. of Geology, University of Akron, Ohio



- The tourist, the gun-slinger and the gardener: Rethinking metaphors of teaching and learning to enhance student reasoning
- Technology in support of effective pedagogy: Peer instruction, electronic



MARTA TORRES

- Life-long learning opportunities in oceanography: A project integrating ocean sciences into adult basic education programs
- Methane-ice in marine sediments: Where, how and why we study these deposits
- Submarine springs: The hot and the cold

College of Ocean and Atmospheric Science, Oregon State University