



American Association of Physics Teachers

FOR IMMEDIATE RELEASE

Michigan Governor, Jennifer M. Granholm, Proclaims the Week of July 25, 2009 as *Physics Education Week*

College Park, Maryland, July 13, 2009. As physics educators from around the world convene at the University of Michigan Campus in Ann Arbor, MI, from July 25-29 for The American Association of Physics Teachers (AAPT) 2009 Summer Meeting they will be participating in Michigan state's official Physics Education Week.

In the official Proclamation, Governor Jennifer M. Granholm "encourages all residents of this state to learn more about physics education and to encourage our youth to become involved in this exciting field." The proclamation will be read as part of the opening ceremonies of the 2009 Summer Meeting.

Onsite registration is available to all interested science scholars at the University of Michigan, Michigan League. The meeting program includes plenary sessions featuring nationally renowned speakers, award winning educators, and a salute to the 400th anniversary of the telescope. As an added attraction, David Saltzberg, physics consultant for the popular television situation-comedy "The Big Bang Theory" will join the program.

Monday, July 27

Special Session

A Physicist Scattering on Hollywood

David Saltzberg, (University of California, Los Angeles) has served for the past two years as the physics consultant for the popular television situation-comedy "The Big Bang Theory" which features physicists as its main characters. He will describe his experiences with production of the show.

APS/DPP Symposium on Plasma Physics

The Electrical Charge and Motion of Objects Inserted into a Plasma

John Goree, (The University of Iowa's Department of Physics and Astronomy) conducts research experiments with Plasma, a gas that has been ionized, with freely moving electrons and ions. Objects immersed in plasma develop an electric charge by collecting electrons and ions. Experiments in the laboratory and on board the International Space Station where micron-size plastic spheres are immersed in plasma will be described, including videos of the microspheres in experiments, showing the rich variety of their collective motion.

Turbulent Liquid Metal Dynamo Experiments

Cary Forest's (University of Wisconsin) research focuses on understanding how electrical currents are generated in plasmas and other MHD systems. This talk will address how dynamo experiments, using high speed flows of liquid sodium, have been investigating the key processes of the geodynamo and solar dynamo. Understanding the conversion of turbulent kinetic energy in the fluid motion into electrical currents and thus magnetic fields, is the biggest challenge for both experiments and theory at this time. Experimental evidence for these currents and future directions, including the possibility of a plasma dynamo experiment, will be discussed.

Robert A. Millikan Medal

Physics for All: From Special Needs to Olympiads

Arthur Eisenkraft, Distinguished Professor of Science Education and Director of the Center of Science and Math in Context (COSMIC), at University of Massachusetts, Boston will present the Millikan Medal Address. He helped create the process that identifies and supports U.S. Physics Olympians Team to compete in the International Physics Olympiad. In 1991, Eisenkraft became the Executive Director of the XXIV International Physics Olympiad, hosted by the U.S. for teams from 40 countries. He was one of the originators of *Quantum* magazine, and also developed the Active Physics curriculum project, which was funded by research grants from the National Science Foundation. He has appeared on numerous television radio shows and his work has been featured in *The New York Times*, *Education Week*, *Physics Today*, *American Journal of Physics*, and *The Physics Teacher*.

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Strengthening Physics Education. Supporting Physics Teachers.

One Physics Ellipse | College Park, MD 20740-3845 | phone: 301.209.3311 | fax: 301.209.0845 | web: www.aapt.org

Tuesday, July 28

Klopsteg Memorial Award

The Role of the Scientist as a Public Intellectual

Lee Smolin, a theoretical physicist, is a founding and senior faculty member at Perimeter Institute for Theoretical Physics in Waterloo, Canada. He is also Adjunct Professor of Physics at the University of Waterloo. His research and writings have made major contributions to the quantum theory of gravity, being a co-inventor of loop quantum gravity and deformed special relativity. He has also worked in cosmology and is the inventor of a theory called cosmological natural selection, which applies a Darwinian methodology to the question of how the laws of physics are chosen. He has research interests also in elementary particle physics, the foundations of quantum mechanics, astrophysics, theoretical biology, and economics.

Excellence in Pre-College Physics Teaching Award

What Your Mother Never Told You About... Physics Teaching

Deborah Roudebush (Oakton High School, Herndon, VA) shares her experiences as a Physics Teacher as she is recognized with this prestigious award. She became a National Board Certified Teacher in 2001 and has served as an AAPT Physics Teaching Resource Agent (PTRA) since 1992, participated in the D.C. Urban initiative, served as Rural Initiative–James Madison University Lead Teacher, and D.C. MSP Lead Teacher in 2008. She has been active in QuarkNet since 2000, serving as Teaching & Learning Fellow with QuarkNet centers. She has participated in the National Academy of Sciences since 2004 and is a member of the College Board AP Physics Redesign Commission. She was recognized as a Presidential Awardee for Excellence in Science Teaching in 2001.

Excellence in Undergraduate Physics Teaching Award

Using Technology to Increase Student Engagement Inside and Outside of the Classroom

Mario Belloni (Davidson College, Davidson, NC) is well known as an author, public speaker, researcher, workshop leader, motivator of students, award winning professor, and an innovator in the use of technology for teaching physics. He received the AAPT Distinguished Service Citation in 2006 and has served as a member of the Planning Committee for the Section Representative/Area Chair Governance (2007), as a member of the AAPT Meetings Committee (2007-08), and as a member of the AAPT Membership and Benefits Committee (2004-07). Belloni is currently Chair of the AAPT Committee on Educational Technologies, North Carolina AAPT Section Representative, and a member of the ComPADRE Quantum Physics Editorial Board.

Wednesday, July 29

Something Incredibly Wonderful Happens: Frank Oppenheimer and the world He Made Up

K. C. Cole (Southern California's Annenberg School of Journalism) is the author of eight nonfiction books, including *The Universe and the Teacup: The Mathematics of Truth and Beauty*. She covered math, physics, cosmology and psychology at *The Los Angeles Times* for 10 years, often exploring connections between science, art, and society, and wrote the column "Mind Over Matter." Cole has taught at UCLA, Wesleyan and Yale Universities, and has been an editor, writer, and columnist at *Discover Magazine*. Her most recent book is *Something Incredibly Wonderful Happens: Frank Oppenheimer and the World He Made Up*, to be published this summer by Houghton Mifflin Harcourt.

About AAPT:

AAPT is the leading organization for physics educators—with more than 10,000 members worldwide. Our mission is to advance the greater good through physics education. We provide our members with many opportunities for professional development, communication, and student enrichment. We serve the larger community through a variety of programs and publications. AAPT was founded in 1930 and is headquartered in the American Center for Physics in College Park, Maryland.

CONTACT:

Journalists are invited to contact Marilyn Gardner, Director of Communications, American Association of Physics Teachers, mgardner@aapt.org, 301-209-3306 regarding press registration and materials regarding this meeting.