

Program

11/10/11

11:00 – 5:00 Registration: Concourse Outside of Campus Center Auditorium
Vendors and Exhibitors Display: Concourse outside Auditorium

Campus Center Auditorium

Welcome

1:00 – 1:10 **Stephen Burns**, Prof. of Geosciences, Member of the Climate Systems Research Center, and Assoc. Dean, College of Natural Sciences

Session A: Climate Change – Plenary

Chair: Donald Candela, Head, Dept. of Physics, UMass Amherst

1:10 – 2:00 **Robert M. Deconto**, Geosciences, UMass Amherst [APS]
“Climate Change and Sea Level Rise, Lessons from the Past and Models of the Future”

2:00 – 2:50 **Klaus S. Lackner**, The Earth Institute, Columbia Univ. [APS]
“Carbon Cycling with Nuclear Power”

2:50 – 3:10 Refreshment Break

Session B: The Future of Nuclear Power – Plenary

Chair: Laura Cadonati, Department of Physics, UMass Amherst

3:10 – 4:00 **Regis A. Matzie**, Westinghouse Electric Company LLC [AAPT]
“The Fundamentals and Status of Nuclear Power”

4:00 – 4:50 **Michael W. Golay**, Massachusetts Institute of Technology [APS]
“The Fukushima Nuclear Event and its Implications for Nuclear Power”

4:50 – 5:40 **Cavan Stone**, Dartmouth College [APS]
“The Liquid Fluoride Thorium Reactor: Energy Cheaper Than Coal”

Session C: Poster Session

Concourse Outside of Campus Center Auditorium

5:40 – 7:00 APS, AAPT, and SPS Poster Session

Session D: Banquet

Student Union Ballroom

Chair: Arthur R. Quinton, Department of Physics, UMass Amherst

7:00 – 9:30 Banquet Speaker [APS]
Robert L. Park, Department of Physics, University of Maryland
“The Only Way Of Knowing”

Saturday, November 19, 2011

7:00 – 12:00 Registration: **Concourse Outside of Campus Center Auditorium**

7:00 – 10:00 Continental Breakfast: **Concourse Outside Campus Center Auditorium**

Session E

7:00 – 8:00 NES-AAPT Executive Committee Breakfast, **Campus Center Room 165**

Session F: Contributed Oral Papers [APS & AAPT]

Campus Center

8:00 – 10:00 F-1 Chair: Zenobia Lojewska, Springfield College, **Auditorium**

F-2 Chair: Jonathan Machta, UMass Amherst, **Room 163**

F-3 Chair: Lorenzo Sorbo, UMass Amherst, **Room 165**

F-4 Chair: John Donoghue, UMass Amherst, **Room 101**

Session G: Nuclear Power and Climate Change – Plenary

Campus Center Auditorium

Chair: Margaret McCarthy, STCC and UMass Amherst

10:00 – 10:50 Edward J. Calabrese, Department of Public Health, UMass Amherst [APS]
“When Sciences Fails Society: Toxicology’s 20th Century Legacy”

10:50 – 11:40 Richard Lindzen, Department of Earth, Atmospheric and Planetary
Sciences, Massachusetts Institute of Technology [AAPT]
“Climate v. Climate Alarm”

11:40 – 12:30 Tyler Ellis, Project Manager, TerraPower, Bellevue, WA [APS]
“TerraPower’s Traveling Wave Reactor”

12:30 – 1:15 **Lunch**

Session H: Lecture Demonstrations

12:30 – 1:00 Karl Martini, Western New England University, **Hasbrouck 20** [AAPT]

Session I: NES-APS Executive Committee

Campus Center Room 165

12:30 – 2:30 NES – APS Executive Committee Lunch Meeting,

**Session J: AAPT Tutorial in Campus Center Auditorium
“Anthropogenic Global Warming”**

Moderator: Wade Sapp, American Science & Engineering, Inc.
(A debate-like format will be followed)

- 1:00 – 3:00** Paul H. Carr, Air Force Research Laboratory & UMass Lowell Emeritus
“Data Supporting Anthropogenic Global Warming: Balancing Ecology with Economics”
and
Laurence I. Gould, Department of Physics, University of Hartford
“Anthropogenic Global Warming — Illuminating some of its Scientific and Methodological Flaws”

Session K: Workshops [AAPT]

- 1:15 - 3:00** **K1:** Margaret E. McCarthy, Environmental Sciences, UMass Amherst, and Chair of Physics, Springfield Technical Community College
“Primer on Ionizing Radiation” **Hasbrouck 212**
- K2:** Robert E. Snyder, UMass Amherst and Brookline HS, retired;
Morton M. Sternheim, UMass Amherst
“Nanoscale Science and Engineering in High School Physics, ”
Integrated Science Building 329
- 3:00-5:00** **K3:** David E. G. Sturm, University of Maine, *“Introductory Level Experiments in Electricity: Ideas from Batteries and Bulb Circuits, and from Electric Fields,* **Hasbrouck 214**

**Session L: Society of Physics Students [SPS]
Campus Center Room 101**

- 1:15 –1:20** **Welcome:** Zachary Nemptow, UMass Amherst SPS President
1:20 – 1:40 Thomas Olsen, Assistant Director, National SPS
1:40 – 2:00 Discussion: Undergraduates Physics
2:00 –2:30 Calla Cofield, Free Lance Science Writer, *“Science Writing: Building a Career Outside of the Lab, While Promoting What Goes on Inside It.”*
2:30 – 3:30 Undergraduate Poster Presentations and Refreshments
3:30 – 5:00 Undergraduate Oral Research Presentations
5:00 – 5:10 Closing Remarks

Session M: Power Plant Tour [APS/AAPT/SPS]

- 1:15 – 5:00** Arthur R. Quinton, UMass Amherst, Facilitator
A small bus will go between the Campus Center and the Power Plant periodically during the afternoon.