

Cornell University Friday, April 18 - Saturday April 19

Overview of Program

**Robert Purcell Community Center (RPCC) Auditorium
Appel-Commons (AC) Third Floor Multipurpose Room**

Friday 4/18

- 9:00-12:00 NYSS APS Executive Committee Meeting (AC 302A)
12:00 First shuttle service from T Lot to RPCC
12:00-4:30 Registration and Tour Sign-up (RPCC)
1:00-5:00 Sessions on Superconducting Radiofrequency Science and Technology (RPCC)
4:30-5:30 NYSS AAPT Executive Board Meeting (AC 302C)
5:00 Second shuttle service from T Lot to AC
5:00-6:30 Social hour and cash bar (AC MPR) and Poster Session (AC 302A)
6:30-7:30 Symposium Banquet - tickets required (AC)
7:30-8:00 Keynote Address (AC MPR)
8:40 Last shuttle service from AC to T-Lot

Saturday 4/19

- 8:30 – 10:30 Registration and Tour Sign-up (AC)
8:30-9:00 Continental Breakfast (AC MPR)
9:00-10:30 First Session on Synchrotron Radiation Science (AC MPR)
10:30 Coffee/tea break
10:45-12:00 Second Session on Synchrotron Radiation Science (RPCC)
12:00-1:00 Lunch – tickets required (AC MPR)
1:00-1:45 Plenary talk on the Standard Model (RPCC)
2:00-3:45 Session on High Energy Physics (RPCC)
2:00-3:45 Physics Workshops for Teachers (AC 302A, B and C)
3:45-4:00 Snacks/Coffee/Tea (AC MPR)

4:15-5:00 Tour of facilities (Wilson and Newman Laboratories)
* *Select one of the following tours at the time of registration **
HEP facilities (Wilson Laboratory)
SRF facilities (Newman Laboratory)
CHESS/ERL (Wilson Laboratory)



2008 APS/AAPT JOINT SPRING TOPICAL SYMPOSIUM

Detailed Program

Friday 4/18

Superconducting Radiofrequency Technology

(Robert Purcell Community Center Auditorium)

Sessions Chair: Robert Pompei, SUNY at Binghamton University

- 1:00 *Welcoming Remarks*
Rick Galik, Cornell University
- 1:15 – 1:45 *Superconducting RF Cavities for Particle Accelerators: An Introduction*
Ilan Ben-Zvi, Brookhaven National Laboratory
- 1:45 – 2:15 *RF Superconductivity*
Jim Sethna, Cornell University
- 2:15– 3:00 *Past, Present and Future SRF Accelerators Around the World: A Success Story*
Hasan Padamsee, Cornell University
- 3:00 – 3:30 Coffee/tea break
- 3:30 – 4:00 *SRF Cavity Preparation and Testing; It's Cool*
Matthias Liepe, Cornell University
- 4:00 - 4:20 *Higher Order Mode Damping in SRF Cavities*
Elise Novitski, Yale University
- 4:20 – 4:40 *The Race for Highest Gradients*
Grigori Eremeev, Cornell University
- 4:40 – 5:00 *SRF Surface Studies and the High Field Q-slope Mystery*
Alexander Romanenko, Cornell University
- 7:30 – 8:00 *Science Funding: The Best of Times?*
Persis Drell, Stanford Linear Accelerator Center

Saturday 4/19

Scientific Advances with Synchrotron Radiation (Appel Commons Third Floor MPR)

Sessions Chair: Patricia Viele, Cornell University

- 9:00 – 9:45 *Synchrotron Generated X-rays: Cool Uses for Hot Beams*
Ken Finkelstein, Cornell University
- 9:45 – 10:30 *Beyond Rocks: Geology and Planetary Sciences with X-rays*
John Parise, SUNY Stony Brook



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10:30 – 10:45 Coffee Break - Transition to RPCC Auditorium

10:45 – 11:25 *If You Build It, Will It Work? Using X-rays to Study Atom-by-Atom Materials Fabrication*
Arthur Woll, Cornell University

11:25 – 12:00 *Art and Science Coming Together to Determine the Unique Construction of a Painting by David Teniers the Younger*
Noelle Ocon, North Carolina Museum of Art

High Energy Particle Physics (RPCC Auditorium)
Session Chair: Sunil Labroo, SUNY at Oneonta

1:00 – 1:45 *The Standard Model*
Maxim Perelstein, Cornell University

PARALLEL SESSIONS

2:00 – 3:45 I. HEP continued (RPCC Auditorium)

2:00 - 2:35 *Neutrinos*
Jim Napolitano, Rensselaer Polytechnic Institute

2:35 -3:10 *Large Hadron Collider: Why Protons?*
Kyle Cranmer, New York University

3:10 – 3:45 *International Linear Collider: Why Electrons?*
Karl Ecklund, University of Buffalo

2:00 – 3:45 II. Teacher Workshops (A-C MPR)

2:00 – 3:00 Attend one of the following workshops:

A. *Diffraction Laboratory*

Kevin Dilley, Cornell Center for Materials Research

B. *Light Emitting Diodes*

Julie Nucci, Cornell Center for Nanoscale Systems

C. *Cloud Chambers and Cosmic Rays*

Lora Hine, Cornell Laboratory for Accelerator-based Sciences

3:00 – 3:45 Opportunities for Teachers and 9-12 students at Cornell University
Deborah Lynn, Ithaca High School
Marty Alderman, Cornell PhysTEC Program
CCMR/CNS (Kevin Dilley and Julie Nucci)

Tours

4:00 – 5:00 Tours of Newman and Wilson Laboratories (optional)

