

Gordon Research Conference on Physics Research and Education
June 11-15, 2000
at Plymouth State College

Jan Tobochnik, Kalamazoo College and Harvey Gould, Clark University, co-chairs
Beth Ann Thacker, Texas Tech University, vice-chair

This series of conferences will focus on how research in physics and research in physics education can be used to improve the teaching of physics, primarily at the undergraduate level. The first conference will emphasize the teaching of thermal and statistical physics. Special attention will be given to areas of current research and technological interest which can be included in such courses, physics and chemistry educational research on conceptual understanding of thermal physics and probability, and innovative curricular materials and approaches. The goal is to bring together workers who are active in research in thermal and statistical physics, researchers in the new field of physics education, and people who teach courses in statistical and thermal physics.

- Wednesday, June 14
 - 7:30 am - 8:30 am, Breakfast
 - Wednesday Morning Session, 9:00 am - 12:30 pm, **Computational Statistical Mechanics**
Discussion Leader: Bulbul Chakraborty, Brandeis University.
 - Bruce Boghosian, Boston University, "Lattice-gas models of fluid flow." (45 min)
 - Bill Hoover, University of California, Davis, "The smooth particle method." (45 min)
 - 10:30 am - 11:00 am, Coffee break
 - Alej Garcia, San Jose State University, "A numerical approach to teaching kinetic theory." (45 min)
 - [Franz J. Vesely](#), University of Vienna, "Statistical physics for the sophomores." (45 min)
 - 12:30 pm - 1:30, pm Lunch
 - 2:00 pm, Informal Discussion Groups
 - 5:00 pm - 6:00 pm, **Planning session for next Gordon conference**
 - 6:00 pm, Dinner
 - Wednesday Evening Session, 7:30 pm - 10:00 pm, **Teaching of statistical and thermal physics in chemistry**
Discussion Leader: Irwin Oppenheim, MIT.
 - David Chandler, University of California, Berkeley, "Teaching statistical mechanics and thermodynamics in a modern physical chemistry course." (50 min)
 - David Meltzer, Iowa State University, "Conceptual problems with free energies in physics and chemistry." (50 min)
 - [Brian B. Laird](#), University of Kansas, "Entropy, disorder and freezing." (50 min)