

Zone 1 Spring 2011 Regional Meeting at UMASS Dartmouth

By Prof. Robert Fisher

Photos at: <https://www.facebook.com/spszone1meet>

Zone 1 of the Society of Physics Students held its annual meeting on April 1-2nd, 2011. This meeting was the result of a joint planning effort between Boston University, the University of Massachusetts Dartmouth, Trinity College (Ct.), and the University of Massachusetts Lowell, and was hosted on the campus of the University of Massachusetts Dartmouth. Some 80 students and faculty participated in the meeting over both days, including nine institutions from all over the New England region and New York -- Sienna College, Trinity College, Boston University, Southern Connecticut State University, Northeastern University, Harvard University, Massachusetts College of the Liberal Arts, UMass Lowell, and UMass Dartmouth.

Friday evening began with a social mixer. Some forty participants, primarily from Boston-area institutions, dug into a pizza dinner, followed by an evening of physics trivia and Fermi questions. Check out the questions (attached) for some brain-stumping trivia! Gift certificates to Amazon were awarded to the top groups in each category.

The day kicked off with a special invited student speaker, Adrian Veres, a physics major at Harvard, who one of the leader researchers pursuing cutting-edge research into the new field of culturomics using the recently-released Google n-gram dataset. He spoke on the "Quantitative Analysis of Culture Using Millions of Books and the Pursuit of Fame."

There was a significant interest in student talks -- ten students in total gave talks on a range of subjects, from ionospheric physics to science education in the classroom to brown dwarfs to gas hydrates. Siena College had a particularly strong representation, with six students presenting talks. In addition, three students presented posters during breaks between sessions.

Professor William Klein of Boston University gave the morning faculty keynote talk, "A Physicists View of Earthquakes : What Can We Learn about Earthquakes from Simple Models?" This talk was particularly relevant given the 2011 Tōhoku earthquake and tsunami, which had not yet occurred when BU students Andrea Welsh and Julie Moreau invited Professor Klein to speak at the meeting in February.

The afternoon session kicked off with a career panel, including four

physics graduates, ranging from a current graduate student (Rob Coyne, of George Washington University), to a former industrial scientist and current lecturer (Charles Nickles, University of Massachusetts Dartmouth), as well as two junior faculty -- Bruce Anderson of Boston University, and David Branning of Trinity College. The panel participants shared their experiences in and out of academia, including experience at government laboratories like Los Alamos National Laboratory and the National Institutes of Standards and Technology, and industry.

Professor Bruce Anderson of Boston University gave the afternoon faculty keynote, "Atmospheric Wave Breaking and its Influence on Ocean-Atmosphere Coupling in the Extratropics and Tropics." Prof. Anderson, who was trained himself as a physicist in his undergraduate studies, explored some of the fascinating geophysical principles involved in fluid dynamics on a rotating sphere, and described the physical mechanisms which give rise to the El Niño/La Niña-Southern Oscillation.