Center for Science and Mathematics Education Research and Maine Mathematics and Science Teaching Excellence Collaborative

## 2004 Summer Conference

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June 20 - 22, 2004

- Call for Posters & Registration Information
- Registration Form
- Invited Speakers
- Schedule of Events

Integrating
Science and Mathematics
Education Research
into Teaching

The University of Maine Orono, Maine

## Role of Diverse Representational Modes in the Learning of Physics

Dr. David E. Meltzer, Department of Physics and Astronomy, Iowa State University

I will report results of a variety of investigations aimed at exploring the role of diverse representational modes in the learning of physics. These include (1) student learning difficulties with standard representations such as graphical representations of vectors, (2) relationship between student problem-solving performance and the particular representational mode in which a problem is posed, and (3) evolution of student thinking regarding certain standard representations over the course of instruction.

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