



November 7-8, 2003
Kansas State University

Joint A-O-K & Nebraska AAPT Section Meetings & Big 12 PER Conference

Invited Targeted Poster Session & Panel Discussion Physics Education Research in the Big 12

Day: Saturday, November 8, 2003

Time: 9:30 a.m. – 11:00 a.m.

Room: Cardwell 103

Discussant: Dean Zollman, Kansas State University

PER02 Role of Diverse Representational Modes in the Learning of Physics

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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; (3) evolution of student thinking regarding certain standard representations over the course of instruction. SUPPORTED IN PART BY NSF GRANT REC-#0206683

David E. Meltzer is an Assistant Professor of Physics at Iowa State University in Ames, Iowa, and since 1998 he has been the director of the Iowa State Physics Education Research Group. He received a Ph.D. in theoretical condensed matter physics in 1985 from the State University of New York at Stony Brook. From 1985-1987 he was a post-doctoral research associate at the University of Tennessee, Knoxville, and a guest scientist at Oak Ridge National Laboratory. From 1987-1991, he was a post-doctoral research associate with the Quantum Theory Project at the University of Florida in Gainesville, and from 1991-1998 he was an Assistant Professor of Physics at Southeastern Louisiana University in Hammond, Louisiana.