Session HC: Physics Education Research: Solved Problems and Open Questions

Location: Washington 3
Sponsor: Committee on Research in Physics Education
Co-Sponsor: APS Forum on Education
Date: Wednesday, Feb. 17
Time: 8:30–10:18 a.m.

Presider: Peter Shaffer

Research on the learning and teaching of physics over the past several decades has led to significant insights into what students learn (and do not learn) in physics courses and how to improve instruction. This session will focus on the questions of what has been learned; to what extent is it generalizable; and what gaps in our knowledge remain to be filled?

HC01: 8:30–9:06 a.m. Surveying the Conceptual and Temporal Landscape of Physics Education Research*

Invited – David E. Meltzer, College of Teacher Education and Leadership, Polytechnic Campus, Arizona State University, Mesa, AZ 85212; david.meltzer@asu.edu

I will discuss the evolution of physics education research within an historical perspective that focuses on origins in the post-World War II period and which extends towards diverse future pathways. PER has incorporated a broad array of themes that resonate with past developments in science education, but it also provides unique perspectives that offer promise of potential breakthroughs in areas previously underexplored. Nonetheless, there is a long road from promise to realization, and I will try to identify key aspects both of past accomplishments and of future challenges.

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