

PHYSICS & ASTRONOMY COLLOQUIUM

University of Missouri-St. Louis
Department of Physics and Astronomy

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Research on Student Learning and the Development of Improved Physics Instruction

In recent years there has been growing interest in systematic investigation into student learning of physics and astronomy at the undergraduate level. This research involves exploring the process by which students come to understand key concepts, and it helps to reveal many of the learning difficulties encountered by students along the way. These investigations have led in many cases to development of new and more effective instructional materials and pedagogical strategies. I will outline the principal goals and methods of this type of research and show how it can lead to improved learning in the classroom. I will discuss some of the investigations carried out by the Physics Education Research Group at Iowa State University, and as an illustration I will describe in some detail our recent investigation into student learning of thermodynamics.

Friday, March 19, 2004

Colloquium: 3:00 PM

Rm 328 Benton Hall

Coffee: 2:30 PM

Rm 516 Benton Hall