

PLEASE POST

Physics Department Seminar

Friday February 11th, 2000

11:00 a.m. in PhSc 105

“Can we help more students learn physics better?”

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Abstract:

As a physics instructor, you know that physics is an easy, enjoyable subject for you, but often NOT for many of your students. Some physicists started to systematically study student learning in physics about 30 years ago. Now, extensive studies in physics education research have been conducted, and ample evidence shows that the difference between what is taught and what is learned is greater than most physics instructors realize. This discrepancy leads physics education researchers to investigate further questions: How do our students learn? And how can we teach effectively? These are extremely difficult and challenging questions. We can get help from studies in the science of learning, cognitive science, psychology, and neuroscience, and from some national studies about skills that students need to prosper in the 21st century workplace. In this talk, I will discuss some ideas, along with detailed examples, about how to blend these diverse and broad research findings into a coherent physics learning system, and to help more students learn physics better.