

# **SEMINAR ANNOUNCEMENT**

## **Closing the gap between what we teach and what is learned**

Dr. Chandralekha Singh

Department of Physics and Astronomy

University of Pittsburgh

**Abstract:** Despite our best and most sincere efforts, there is an alarming disconnect between what we teach and what students learn and understand. The goal of physics education research is to help close this gap. I will discuss, using my own research and activities as examples, the three main components of physics education research: (1) Identification of student difficulties, (2) curriculum/pedagogy development to reduce these difficulties, and (3) implementation/evaluation of new pedagogies and teaching methods. I am working on developing teaching strategies such as introductory and advanced level tutorials and peer instruction tools that actively involve students in the learning process. I will discuss how I use and refine these teaching methods, and evaluate their effectiveness using a variety of methodologies.

**. Tuesday, January 26<sup>th</sup>, 2010**

**12:00 – 1:00 pm**

**Room SI 117**

*Pizza and refreshments will be served before the seminar.*