

# *Physics Colloquium Series*

## **The Strength of Weak Gravitational Lensing**

*Weak lensing, often considered the "little sibling" to strong gravitational lensing, has matured over the last decade to become a powerful probe of cosmology. My talk will start with an introduction to weak lensing and trace its brief history. I will then explain how weak lensing can be used to constrain cosmological parameters, in particular, the nature of dark energy. I plan to discuss current surveys used to detect galaxy clusters and cosmic shear, and to highlight the experimental challenges that are being overcome. Finally, I will outline the upcoming prospects for weak lensing, including future techniques and the next generation surveys.*

### **Chris Roat**

*UC Davis, Physics*

**Thursday, April 7, 2005**

**4:00-5:20 PM MND 1015**

**OPEN & FREE TO ALL STUDENTS & FACULTY**