



SACRAMENTO STATE

Department of Physics & Astronomy Fall 2005

# *Physics Colloquium Series*

## *“The Interface of Quantum Mechanics and General Relativity”*

*The detection of gravity waves from the very early Big Bang is an extremely important scientific problem, because it tells us not only about the origin of the universe, but would also shed light on some of the most basic problems of particle physics, for example, whether string theory, M-theory, or inflaton theory provides the correct picture for extremely high-energy physics. Bolometers using a Planck-mass film of superfluid helium, with electrons attached to vortices within the film, should provide a possible method for detecting these waves, in much the same way as bolometers are presently being used to detect the cosmic microwave background in electromagnetic waves.*

# **Raymond Chiao**

*UC Berkeley, Physics*

**Thursday, Dec. 1, 2005**

**\*4:15-5:45 PM MND 1015**

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