



SACRAMENTO STATE

Department of Physics & Astronomy Fall 2006

# *Physics Colloquium Series*

## *"Numerical Studies of Star Formation"*

*The birth of stars is a complex process, which involves the delicate interplay of gravity, radiation, turbulence, and magnetic fields. Exactly how these mechanisms shape the final properties of stars both collectively and individually is poorly understood. Important questions include: What is the origin of the stellar mass function? How is the final mass of a star determined? What determines whether a pre-stellar core forms a single star, binary, or multiple system? The application of sophisticated numerical techniques has proved to be a valuable tool for addressing these questions. In this talk, I will review observations and progress in the field of star formation. I will then discuss my simulation work on the formation of pre-stellar cores and stars using the adaptive mesh refinement code Orion.*

**Stella Offner**

*UC Berkeley, Department of Physics*

**Thursday, Oct. 19, 2006**  
**4:00-5:20 PM MND 1015**

**Open & Free to all Students, Faculty & Public**