

UNCA DEPARTMENT OF MATHEMATICS  
RESEARCH SEMINAR  
SPRING 2008

**Date:** Tuesday, February 19th

**Speaker:** Sam Kaplan, UNCA Department of Mathematics

**Title:** *The surprise of Epimetheus and Janus*

**Abstract:** Epimetheus and Janus are moons of Saturn. They orbit Saturn at nearly identical radii. Astronomers argued over which moon was which until they realized that the two moons switch orbits—regularly. This was the first known example of interesting dynamics in a coorbital problem.

We will look at where such switching orbits come from and alternative dynamics to switching orbits, including chaos.