Chaos frustrates our ability to predict the future from knowledge of the present. Weather prediction and human behavior are prime examples. I will explain the origin of chaos by considering the swing of a pendulum. Then I will describe the role it plays in unpredictable orbits, in climate variations on Mars, and in the transport of meteorites from the asteroid belt to Earth. The pendulum that underlies each example will be revealed. My presentation will include movies, demonstrations, and meteorites.

Three Easy Pieces: Examples of Chaos in the Solar System

SPEAKER: Professor Peter Goldreich
INSTITUTE FOR ADVANCED STUDY

THURSDAY, FEBRUARY 8, 2007, 8:00 P.M.
MICHAEL G. DEGROOTE CENTRE FOR LEARNING & DISCOVERY (MDCL), ROOM 1305/1307
MCMASTER UNIVERSITY, HAMILTON, ONTARIO

The Origins Institute is a newly created institute at McMaster University. Its scientific focus is to create and foster interdisciplinary research on origins themes across a broad range of fundamental science. It also sponsors a public outreach and lectures program, as well as an undergraduate Origins specialization.