

SANTA BARBARA • SANTA CRUZ

## Geometry, Topology, and Physics Seminar

## Contractible Divisors in F-theory

## David Morrison UCSB

Friday, May 28th, 2010, 4:00 p.m. Room 6635 South Hall

**Abstract:** Many of the recent applications of F-theory to building explicit models for 4-dimensional physics have been constructed using neighborhoods of contractible divisors as the base of the associated elliptic fibration. We will give an introduction to the mathematics and physics of contractible divisors on the bases of elliptic fibrations, starting with elliptic threefolds (which have an application to 6-dimensional physics) and then proceeding to elliptic fourfolds (which have an application to 4-dimensional physics).