

# TEMPLE UNIVERSITY GEOMETRY SEMINAR

**Robert Lipshitz**

Columbia University

will speak on

## **An introduction to bordered Floer homology**

ABSTRACT: Heegaard Floer homology is a holomorphic curve invariant of 3- and 4-manifolds inspired by gauge theory. While it contains lots of topological information, it remains difficult to compute. Bordered Floer homology attempts to compute Heegaard Floer homology by decomposing 3-manifolds along surfaces. In this talk, we will outline the basic structure of bordered Floer homology, and then motivate its construction by considering a combinatorial analogue in terms of partial planar grid diagrams. This is joint work in progress with Peter Ozsvath and Dylan Thurston.

TUESDAY, 17 MARCH 2009

LECTURE AT 2:40 PM

ROOM 617, WACHMAN BUILDING

DEPARTMENT OF MATHEMATICS