

Dylan Thurston

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will speak on

Heegaard Floer Homology

ABSTRACT: Heegaard Floer homology is a homological invariant of 3-manifolds and knots whose Euler characteristic is the Alexander polynomial. It detects knot genus (or more generally the Thurston norm) and fibration, and has many other uses. There is an elegant combinatorial formulation of knot Heegaard Floer homology from grid diagrams, a grown-up version of tic-tac-toe. We will explain this formulation and variations that give powerful invariants in dimensions from 2 to 4. For instance, we get a faithful action of the based mapping class groups on a category.

MONDAY, 11 OCTOBER 2010

LECTURE AT 4:00 PM

COFFEE, TEA, AND REFRESHMENTS FROM 3-5 PM

ROOM 617, WACHMAN BUILDING

DEPARTMENT OF MATHEMATICS