Heegaard Floer homology of broken fibrations

Yanki Lekili

(MIT)

January 30, 2009

We will outline a programme for identifying Perutz's Lagrangian matching invariants and Ozsvath-Szabo's Heegaard Floer invariants of three and four manifolds. In this talk, we will deal with purely Heegaard Floer theoretical side of this programme and describe the isomorphism of 3-manifold invariants for certain $Spin^c$ structures where the groups involved can be formulated in the language of Heegaard Floer theory. As applications, we give new calculations of Heegaard Floer homology of certain classes of 3-manifolds and an outline of a proof of Floer's excision theorem in the context of Heegaard Floer homology.

1:10 p.m.
Math 520
Columbia University