Smooth four-manifolds, surgeries along tori, and exotica

Refik Inanc Baykur
(Brandeis)

Wednesday, Oct. 27, 3-4 pm in PSY B53
Tea 2:45-3 in MCS 153

Abstract:

The purpose of this talk is to demonstrate the novel role of surgeries along embedded tori in four-manifolds in (1) relating two homeomorphic but not diffeomorphic four-manifolds; and (2) producing new families of pairwise non-diffeomorphic four-manifolds in the same homeomorphism class. We will give new constructions of exotic smooth and symplectic four-manifolds, and exotic knottings of surfaces in the four-sphere.