

Topology Seminar

Joana Cirici

of Freie Universität Berlin will be speaking on

Topology of complex projective varieties with isolated singularities

on October 20 at 4:30 in
MIT Room 2-131

I will explain a homotopical treatment of intersection cohomology recently developed by Chataur-Saralegui-Tanré, which associates a “perverse homotopy type” to every singular space. In this context, there is a notion of “intersection-formality”, measuring the vanishing of Massey products in intersection cohomology. The perverse homotopy type of a complex projective variety with isolated singularities can be computed from the morphism of differential graded algebras induced by the inclusion of the link of the singularity into the regular part of the variety. I will show how, in this case, mixed Hodge theory allows us prove some intersection-formality results (work in progress with David Chataur).