

**Reza Rezazadegan** (Nantes)

Title: *A spectral sequence for Lagrangian Floer homology*

Abstract:

When well-defined, Lagrangian Floer homology assigns an abelian group to a pair of Lagrangian submanifolds of a symplectic manifold. In this talk we are concerned with the effect of fibered Dehn twists on Floer homology. Such Dehn twists are certain symplectomorphisms of the symplectic manifold  $M$ , associated with Lagrangian (and more generally coisotropic) spheres in  $M$ . I shall describe a spectral sequence converging to the Floer homology of multiple fibered Dehn twists whose  $E_1$  page is a hypercube of resolutions of the twists. This has applications to some knot and 3-manifold invariants.