Speaker: Michael Perlman

Title: Equivariant D-modules on spaces with finitely many orbits

Abstract: Let X be a variety endowed with the action of a linear algebraic group G. Given an orbit, the local cohomology modules with support in its closure encode a great deal of information about its singularities and topology. We will discuss how techniques from representation theory and the theory of D-modules (and quivers!) may be used to compute these local cohomology modules in the case when G acts with finitely-many orbits.