Abstract: Given a closed subvariety $Z$ in a smooth complex variety $X$, the local cohomology sheaves with support in $Z$ are holonomic D-modules, and thus have finite filtration with simple composition factors. We will discuss work in progress concerning the D-module structure on local cohomology in the case when $X$ is a Grassmannian and $Z$ is a Schubert variety, including combinatorial formulas describing the composition factors and levels of the weight filtration. Upon restriction to the "opposite big cell", these calculations recover several previously known results concerning local cohomology with support in determinantal varieties.

Tuesday, September 20 at 11:00 AM in 636 SEO