



Speaker: Robin Hartshorne
University of California - Berkeley

Wednesday, November 19, 2014
3:00 PM
258 Hurley Hall

Title: D-modules and local cohomology

Abstract:

I will introduce some of the basic ideas and results about D-modules, that is modules over a ring having also an action of the derivations of that ring. Then I hope to explain some recent work of Lyubeznik showing that local cohomology modules, while in general not finitely generated over the ring, are nevertheless finitely generated as D-modules. This allows one to prove finiteness results such as the finiteness of the number of associated primes of a local cohomology module.