Topology Seminar

Alex Suciu

of Northeastern University will be speaking on

Cohomology jumping loci

on October 6 at 4:30 in
MIT Room 2-131

The cohomology jumping loci of a space X come in two basic flavors: the characteristic varieties (the jump loci for cohomology with coefficients in rank 1 local systems), and the resonance varieties (the jump loci for the homology of the cochain complexes arising from multiplication by degree 1 classes in the cohomology ring of X). I will discuss various ways in which the geometry of these varieties is related to the formality, quasi-projectivity, and homological finiteness propoerties of the fundamental group of X.