Generic vanishing results on certain Koszul cohomology groups

Jie Wang
Ohio State

A central problem in curve theory is to describe algebraic curves in projective spaces with fixed genus and degree. One wants to know the extrinsic geometry of the curve, i.e. information on the equations defining the curve. Koszul cohomology groups in some sense carry 'everything one wants to know' about the extrinsic geometry of curves in projective space: the number of equations of each degree needed to define the curve, the relations between the equations, etc. In this talk, I will present a new method using deformation theory to study Koszul cohomology of general curves. Using this method, I will describe a way to determine number of defining equations of a general curve in some special degree range (but for any genus).

Tuesday, November 15
3:00 p.m. – 4:00 p.m.
MIT (2-146)