Abstract:
Supercurves are the simplest class of complex supermanifolds, one-dimensional in some sense and thus analogs of Riemann surfaces. I will describe a remarkable duality between pairs of supercurves that generalizes Serre duality for Riemann surfaces. Self-dual supercurves are precisely the super Riemann surfaces introduced by physicists in connection with string theory. I'll suggest connections between this duality and the classical duality between points and hyperplanes in projective space. No prior knowledge of supergeometry is required. (This is a continuation of the talk I gave earlier this quarter, and will begin with a review of that talk.)