KAREN SMITH, University of Michigan, Ann Arbor, MI
Uniform Results in Algebra and Geometry via Multiplier Ideals

In recent years, there has been a flurry of questions about *uniform behavior* in commutative algebra and algebraic geometry. Multiplier ideals have had a tremendous impact in solving many of these questions. Multiplier ideals can be defined in three rather different ways. Originally defined by analysts, they are functions in some L^2-space. For algebraic geometers, they are defined via resolutions of singularities. For commutative algebraists, they are defined in rings of prime characteristic using tight closure. In this talk, we will discuss a few of the diverse problems about *uniform behavior* in algebra and geometry that have been solved using multiplier ideals, as well as the different perspectives from which multiplier ideals can be viewed.