

Characteristic p methods in commutative algebra

Craig Huneke
University of Kansas

ABSTRACT

I will talk about the history of characteristic p methods in commutative algebra, leading up to the development of tight closure theory. Recent work has shown a close connection between these methods and methods coming from multiplier ideals. The talk will concentrate on some specific problems, one of which is the determination of polynomial functions which vanish with prescribed multiplicities at a given set of points in the projective plane.