

Topology Seminar

Mark Walker

of University of Nebraska will be speaking on

What is the algebraic K-theory of a monoid?

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

This is joint work with Guillermo Cortinas, Christian Hassemeyer and Chuck Weibel. Let A be a commutative monoid and k a field. What part of the algebraic K-theory of the monoid-ring $k[A]$ comes from just the monoid and is independent of the field k ? I describe a partial answer to this question, one which involves topological cyclic homology, toric varieties, and Voevodsky's cdh topology. I will also explain how our answer leads to a proof of Gubeladze's "nilpotence" conjecture for the algebraic K-theory of toric varieties in arbitrary characteristic.