Mathematics, Statistics, and Computer Science **@ UIC**

Algebraic K-Theory Seminar

Commutative algebra of categories

John Berman (University of Virginia)

Abstract: Many familiar categories themselves have ring structures, with a multiplicative operation distributing over an additive operation. In Set, Cartesian product distributes over disjoint union, while in Vect, tensor product distributes over direct sum. The commutative algebra and algebraic geometry of these ring categories provides a natural home for both the study of algebraic theories (such as Lawvere theories and operads), as well as higher algebraic K-theory. Time permitting, we will mention some intended applications to equivariant homotopy theory.

Wednesday, October 4 at 10:30 AM in SEO 1227