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

Algebraic K-Theory Seminar

The transfer in algebraic K-theory and THH

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Abstract: Let R -> A be a map of rings or ring spectra, and suppose that A is perfect (finitely generated projective) as an R-module. Then in addition to the usual map on algebraic K-theory K(R) -> K(A), there is a wrong-way "transfer" map K(A) -> K(R). In particular, when E -> B is a map of spaces whose homotopy fiber F is finitely dominated, this gives a wrong-way map on Waldhausen's functor A(B) -> A(E). We will ask a few fundamental questions about this transfer, and present the beginning of a program to answer these questions using trace methods. Our main results concern the corresponding transfer on THH, which in the A-theory case is a stable map of free loop spaces LB_+ -> LE_+. If there is time, we will also describe how our techniques are related to the study of fixed points of dynamical systems.

Wednesday, February 1 at 1:00 PM in SEO 1227