## **Topology** Seminar

## Akhil Mathew

of University of Chicago will be speaking on

## *p*-adic *K*-theory and topological cyclic homology

on September 10 at 4:30 in MIT Room 2-131

The cyclotomic trace from algebraic K-theory to topological cyclic homology (TC) is an important tool in describing the *p*-adic *K*-theory of *p*-adic rings, and has been used in several computations (such as Hesselholt-Madsen's computation of the *K*-theory of local fields). TC, while more complicated to define, has somewhat simpler formal properties than *K*-theory and is as a result often easier to compute. I will describe some new results to the effect that TC is a strong approximation to *p*-adic *K*-theory, and some resulting structural consequences for *p*-adic *K*-theory. This is joint work with Dustin Clausen and Matthew Morrow.