

Topology Seminar

Matthew Ando

of University of Illinois Urbana-Champaign will be speaking on

Parametrized spectra, Thom spectra, and twisted Umkehr maps

on October 27 at 4:30 in
MIT Room 2-131

Let R be an associative ring spectrum. I shall describe several new constructions of the R -module Thom spectrum associated to a map $f : X \rightarrow \mathrm{BGL}_1 R$. The space $\mathrm{BGL}_1 R$ classifies the twists of R -theory, and to a fibration of manifolds $g : Y \rightarrow X$ I shall associate an Umkehr map $g_!$ from the fg -twisted R -theory of Y to the f -twisted R -theory of X . In the case of K-theory, this twisted Umkehr map appears in the study of D -brane charge. I shall review this story, and then discuss the analogous construction for TMF.