

Topology Seminar

Lennart Meier

of University of Virginia will be speaking on

From affineness towards duality in chromatic homotopy theory

on October 28 at 4:30 in
MIT Room 2-131

For an affine (derived) scheme, the global sections functor from quasi-coherent sheaves to modules over the global sections of the structure sheaf is an equivalence. We will report on joint work with Akhil Mathew that the same is actually true for many derived stacks occurring in chromatic homotopy theory, such as the derived (compactified) moduli stack of elliptic curves. This and similar techniques allow to show the norm map from homotopy orbits to homotopy fixed points to be an equivalence in many cases (like the $GL_2(\mathbb{Z}/n)$ -action on $\mathrm{Tmf}(n)$). Such equivalences have been useful in Stojanoska's work on the Anderson self-duality of Tmf . At the end, we will report on work in progress to extend these results to topological automorphic forms.