Topology Seminar

Tyler Lawson

of University of Minnesota will be speaking on

p-divisible groups, automorphic forms, and displays

on November 9 at 4:30 in
MIT Room 2-131

Lurie's theorem allows the functorial construction of E_∞ ring spectra associated to certain p-divisible groups. In this talk I will discuss three situations in which we can apply this and attempts to understand the computational results. The first is joint work with Behrens on the relationship between the moduli of elliptic curves and certain moduli of abelian surfaces with complex multiplication. The second is joint work with Hill on Shimura curves that parametrize "false elliptic curves", and in particular trying to obtain computations of the homotopy of the associated spectra without niceties such as q-expansions and Weierstrass equations. The third is on using Zink's work on displays to produce E_∞ ring spectra from purely algebraic input data, in the form of invertible matrices over Witt rings.