Topology Seminar

Lukas Brantner

of Oxford/MSRI will be speaking on

Formal Moduli Problems via Partition Lie Algebras

on April 29 at 4:30 in
MIT Room 2-131

If k is a field of characteristic zero, a theorem of Lurie and Pridham (based on previous work of Deligne, Drinfel'd, Feigin, Hinich, and others) establishes an equivalence between formal moduli problems and differential graded Lie algebras over k. We generalise this equivalence to finite and mixed characteristic by using "partition Lie algebras". These mysterious new gadgets are intimately related to the genuine equivariant topology of the partition complex, which allows us to access the operations acting on their homotopy groups (relying on earlier work of Dyer-Lashof, Priddy, Goerss, and Arone-B.). This is joint work with Akhil Mathew.