Topology Seminar

Hana Jia Kong

of Harvard University will be speaking on

A deformation of Borel equivariant homotopy

on September 25 at 4:30 in
MIT Room 2-131

The real motivic stable homotopy category has a close connection to the C_2-equivariant stable homotopy category. From a computational perspective, the real motivic computation can be viewed as a simpler version which "removes the negative cone" in the C_2-equivariant stable homotopy groups. On the other hand, by work of Burklund–Hahn–Senger, one can build the completed Artin–Tate real motivic category from the completed C_2-equivariant category using the deformation construction associated to the C_2-effective filtration.

In work with Gabriel Angelini-Knoll, Mark Behrens, and Eva Belmont, we try to build an analog of this deformation story for a general finite group G. We give a new interpretation of the C_2-effective filtration in the Borel equivariant category which generalizes for G. Using this new interpretation, the deformation construction gives a deformation of the Borel equivariant stable homotopy category for general finite groups.

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