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"q–de Rham cohomology and complex K-theory"

Abstract:

Work of Bhatt–Morrow–Scholze highlights a "q-deformation" of algebraic de Rham cohomology, and moreover a striking relation of this invariant to stable homotopy theory via topological Hochschild homology, i.e. Hochschild homology relative to the sphere spectrum. In this talk, I will discuss an ongoing investigation into a related phenomenon involving Hochschild homology relative to the complex K-theory spectrum, drawing a link with chromatic homotopy theory.