Oberseminar Topologie: 15.12.2025

## Prof. Dr. Achim Krause, Universität Oslo

Title: H infinity structures and delta rings

Abstract: The bottom homotopy group of a flat commutative algebra over the sphere spectrum inherits a delta-ring structure from the Tate-valued Frobenius of Nikolaus-Scholze, which plays a big role in the relationship between trace methods and prismatic cohomology. It is an interesting question how much of the E\_infty ring structure is remembered by this delta-ring structure. In this talk, we present a modest step towards understanding this, by proving that there is a one-to-one correspondence between H\_infinity ring structures on flat S-modules and delta-ring structures on their pi\_0.