

Oberseminar Topologie: 06.01.2025

Ko Aoki, MPI Bonn

Title: Solidification of algebraic K-theory

Abstract: Clausen–Scholze's condensed mathematics provides a framework for doing homological algebra in the presence of topology. A key notion is solidification, a completion process for condensed spectra (roughly, spectra equipped with a topology). In this talk, we consider the solidification of the algebraic K-theory of condensed algebras. I explain results that connect it to topological and semitopological K-theory. I then discuss Rosenberg's conjecture on the algebraic K-theory of operator algebras and suggest how condensed mathematics may offer new perspectives.