The Index map for the C*-algebras of a homeomorphism on the Cantor set with finitely minimal subsets

Abstract:

Consider the C*-algebra of a homeomorphism on the Cantor set, and assume that the homeomorphism has k minimal invariant closed subsets. This C*-algebra then has an extension structure naturally. If k is at least 2, it turns out that the index map associated to this C*-algebra extension is always nonzero. In the talk, I'll explain how this index map information imposes some strong conditions on the ideal of the extension, and how it does with the original dynamic system. This is a joint work with Wei Sun.