

Diagonal ASH Algebras with stable rank one

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In this talk, we introduce a subclass of recursive subhomogeneous algebras, in which each of the pullback maps is diagonal in a suitable sense. We define the notion of a diagonal map between two such algebras and show that every simple inductive limit of these algebras with diagonal maps has stable rank one. As an application, we prove that for any infinite compact metric space T and minimal homeomorphism $h: T \rightarrow T$, the associated dynamical crossed product $C^*(\mathbb{Z}, T, h)$ has stable rank one. This affirms a conjecture of Archey, Niu, and Phillips. We also verify that the Toms-Winter Conjecture holds for minimal crossed products of this type. This talk is based on joint work with James Lutley.