

Soft C^* -algebras

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Abstract

I will define soft elements in a C^* -algebra as, roughly speaking, those that are the opposite of projections. These elements and their associated hereditary sub- C^* -algebras enjoy many permanence properties and can be used in a variety of situations. In particular, by studying when a C^* -algebra has an abundance of such elements, I will provide new characterizations of pure infiniteness and the Global Glimm Property.

I will also introduce the concepts of strong, weak, and functional softness for Cuntz classes, and explain how these are related to the C^* -algebraic version of softness.

The talk is based on joint work with Hannes Thiel.