

GTAP Seminar

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HH-3017

Crossed product C*-algebras and minimal dynamical systems

Abstract

Given a minimal dynamical system (X, α) , we can construct a crossed product C*-algebra. Not surprisingly, this C*-algebra shall contain information about both the space X and the minimal homeomorphism α . Besides, for two such dynamical systems (X, α) and (X, β) , let A and B be the corresponding crossed product C*-algebras. The relationship between α and β does indicate some relationship between C*-algebras A and B , and vice versa. Such relations enable us to understand some topological dynamical properties from the point of the view of C*-algebras, and the other way around.

I will cover the history of studies related to this, some remarkable results, my work in this part, current status of it, and some comments.