Department of Mathematics,
University of California San Diego

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Math 243 - Functional Analysis Seminar

Prof. Mehrdad Kalantar
University of Houston

Noncommutative boundary maps and C*-algebras of quasi-regular representations

Abstract:

We investigate some structural properties of C*-algebras generated by quasi-regular representations of stabilizers of boundary actions of discrete groups G. Our main tool is the notion of (noncommutative) boundary maps, namely G-equivariant unital positive maps from G-C*algebras to C(B), where B is the Furstenberg boundary of G. We completely describe the tracial structure and characterize the simplicity of these C*-algebras. As an application, we show that the C*-algebra generated by the quasi-regular representation associated to Thompson's groups $F < T$ does not admit traces and is simple.

This is joint work with Eduardo Scarparo.

Host: Matthew Wiersma

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11:00 AM
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