Department of Mathematics,
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Math 243 - Functional Analysis Seminar

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Caltech

Classification of Choquet-Deny Groups

Abstract:

A countable discrete group is said to be Choquet-Deny if it has a trivial Poisson boundary for every non-degenerate probability measure on the group. In other words, a countable discrete group is Choquet-Deny if non-degenerate random walks on the group have trivial behavior at infinity. For example, all abelian groups are Choquet-Deny. It has been long known that all Choquet-Deny groups are amenable. I will present a recent result classifying countable discrete Choquet-Deny groups: a countable discrete group is Choquet-Deny if and only if none of its quotients have the infinite conjugacy class property. As a corollary, a finitely generated group is Choquet-Deny if and only if it is virtually nilpotent. This is a joint work with Joshua Frisch, Yair Hartman, and Omer Tamuz.

Host: Todd Kemp

Thursday, November 8, 2018
1:00 PM
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