Department of Mathematics,
University of California San Diego

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Math 211 B00 - Group Actions Seminar

Prof. Anton Bernshteyn

Georgia Tech

Equivariant maps to free and almost free subshifts

Abstract:

Let Γ be a countably infinite group. Seward and Tucker-Drob proved that every free Borel action of Γ on a Polish space X admits a Borel equivariant map π to the free part of the Bernoulli shift k^Γ, for any $k \geq 2$. Our goal in this talk is to generalize this result by putting extra restrictions on the image of π. For instance, can we ensure that $\pi(x)$ is a proper coloring of the Cayley graph of Γ for all $x \in X$? More generally, can we guarantee that the image of π is contained in a given subshift of finite type? The main result of this talk is a positive answer to this question in a very broad (and, in some sense, optimal) setting. The main tool used in the proof of our result is a probabilistic technique for constructing continuous functions with desirable properties, namely a continuous version of the Lovász Local Lemma.

Host: Brandon Seward

Thursday, October 14, 2021
12:00 PM
Zoom ID 967 4109 3409 (email an organizer for the password)

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