

Graduate Groups and Dynamics Seminar

Introduction to the work of "7 samurais"

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Abstract: This semester we plan to discuss the recent work of Abert-Bergeron-Biringer-Gelander-Nikolov-Raimbault-Samet) and to (hereafter 7s) that, among other things, discusses the asymptotic growth of the Betti numbers of compact locally symmetric manifolds $b_i(M)/\text{vol}(M)$ as $\text{vol}(M) \rightarrow \infty$, where $M = \Gamma \backslash X$ are quotients of a fixed (higher rank) irreducible symmetric space.

To understand these results (and to put them in perspective) we need to discuss a variety of important and cool math topics:
- L^2 -Betti numbers - Luck's Approximation Theorem - Benjamini-Schramm convergence - Invariant Random Subgroups
- Stuck-Zimmer theorem - and more... There is some topology, geometry, dynamics, and number theory in this all.

In this first talk we will give a general overview, and discuss soem organizational topics.

Wednesday, January 23 at 4:00 PM in 612 SEO
