

EXPONENTIAL MIXING AND ESSENTIAL SPECTRAL GAPS FOR ANOSOV SUBGROUPS

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ABSTRACT

Anosov subgroups are generalizations of convex cocompact subgroups to higher rank and they have gained popularity in recent years. In higher rank, we must distinguish the one-parameter diagonal flow on the associated homogeneous space and a certain family of projections called translation flows which are conjugate to the Gromov geodesic flow. Joint with Michael Chow, we establish exponential mixing of the translation flow, effectivizing/generalizing various prior results. We also discuss applications to essential spectral gap for the Selberg zeta function and an asymptotic formula for counting conjugacy classes with a power-saving error term.