Analysis and Differential Geometry Seminar

Microlocal Methods in Hyperbolic Dynamics

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Abstract: Microlocal analysis, a toolbox in linear PDE theory, has brought some recent advancements in hyperbolic dynamics, namely the study of chaotic dynamical systems. Specifically, it provides an appropriate functional-analytic framework on which the dynamics exhibit nice spectral properties. In this talk, I will introduce the dynamical zeta function for smooth Anosov flows on compact manifolds, describe its meromorphic continuation using microlocal methods, and mention some work on extracting topological information of the underlying dynamical system from the zeta function's behavior at zero.

Friday, September 1, 2023, 11:00 am
Atwood 240

Mathematics
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