# Bay Area Microlocal Analysis Seminar

**Friday, April 18th, at Stanford**

**2:15pm, Room 380-C**

## Ruelle resonances for Anosov diffeomorphisms (after Faure, Roy, and Sjöstrand)

**MACIEJ ZWORSKI**
University of California, Berkeley

**Abstract**

I will report on a recent paper by Faure, Roy, and Sjöstrand who used microlocal methods to give new (and to some of us simple) proofs of many known facts about Anosov diffeomorphisms on compact manifolds: mixing and the existence of Sinai-Ruelle-Bowen measures for (Lebesgue) measure preserving maps, the spectral properties of the Koopman operator, and the decay of correlations in terms of Ruelle resonances (originally established by Anosov, Ruelle, Baladi, Liverani...).
For the full abstract, check the web page.

## AND

**4:15pm, Room 380-C**

## Methods of sampling from a manifold

**PERSI DIACONIS**
Stanford University

**Abstract**

In a variety of applied problems, one is given a (reasonably nice) compact submanifold embedded in Euclidian space and required to choose a sample of points from the area measure. For example, the set of positive n-tuples with a fixed sum and product. I will motivate this class of problems, give several examples and algorithms, and study the analysis problems posed by the algorithms. This is joint work with Susan Holmes and Mehrdad Shahshahani.

`http://math.stanford.edu/~andras/PDE/PDE.html`