

Title: Deviation from the average for horocycle flows on surfaces of variable negative curvature

Abstract: We will explain how to use transfer operators on anisotropic spaces and Dolgopyat bounds to show that the deviation from the time- T average of the horocycle flow of any suitably bunched C^3 contact 3-d Anosov flow (with orientable strong-stable distribution) is bounded by a negative power of T . This transports the discrete-time model of Giulietti-Liverani to the natural setting of geodesic *flows* in variable negative curvature, where nontrivial resonances exist. (This work is part of the PhD thesis of Alexander Adam.)