Langevin equations for slow degrees of freedom of Hamiltonian systems

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I will sketch a plan for a way to derive a Langevin equation for the slow degrees of freedom of a Hamiltonian whose fast ones are mixing Anosov. It uses the Anosov-Kasuga adiabatic invariant, Ruelle's formula for weakly non-autonomous SRB measures, and martingale theory.

http://www.maths.warwick.ac.uk/~mackay