Analysis/Dynamical Systems Seminar

Friday, April 22, 2016
2:00-2:50 pm in Hume 321

Large deviation principle in logarithmic potential theory

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After recalling a few basic facts about large deviations in probability and random matrix theory, we will describe how a general large deviation principle can be proved in the framework of logarithmic potential theory on the complex plane. This involves a L2type discretization of weighted logarithmic energy with respect to a measure that satisfies a Bernstein-Markov property. The derived large deviation principle holds in a scalar or vector setting, and in some other situations as well. This is a joint work with Thomas Bloom and Norman Levenberg.