



## Mathematics and CS Seminar

# A large deviation principle for empirical measures on Polish spaces

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A large deviation principle for the empirical measure of a general class of Gibbs measures is proved in the macroscopic limit of a large number of particles. This includes the eigenvalue distribution of Gaussian random matrices and the roots of Gaussian random polynomials but it is general enough to contain Gibbs measures on Riemannian manifolds and different temperature regimes. The proof relies on a Laplace principle and what is sometimes called the weak convergence approach to large deviations. A gamma-convergence of the energies that define the Gibbs measures can also be proved along with the convergence of their minima. This talk is based on the preprint <https://arxiv.org/pdf/1703.02680.pdf>.

**Tuesday, January 15, 2019 03:30pm - 06:00pm**

Big Seminar room Ground floor / Office Bldg West (I21.EG.101)



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