

Real diffusion with complex spectral gap

Jean-François Bony

March 22, 2023

Generically, the generator of Langevin process admitting a Gibbs stationary distribution is a non-selfadjoint operator but its first eigenvalues are real in the low temperature regime. We exhibit processes for which the spectral gap is given by non-real eigenvalues or has a non trivial Jordan block. This is a joint work with Laurent Michel.