Escape from metastable states in Markovian systems
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In this talk I will review some results, obtained in collaboration with A. Gaudilliere, concerning the characterization of metastability for Markov processes on finite configuration space and in some asymptotic regime. By comparison between the restricted ensemble and the quasi-stationary measure and by means of potential theoretic tools, we will provide sharp estimates on mean exit time and transition time, and show their connection to the relaxation and the mixing times. Some examples and applications of the method will be finally discussed.