



## Probability Seminar

**Title:** Spectral gaps via small deviations

**Speaker:** Marco Carfagnini (UC San Diego)

**Date:** Mon 18th December 2023 at 3:00PM

**Location:** E0.32 (beside Pi restaurant)

**Abstract:** In this talk we will discuss spectral gaps of second order differential operators and their connection to limit laws such as small deviations and Chung's laws of the iterated logarithm. The main focus is on hypoelliptic diffusions such as the Kolmogorov diffusion and horizontal Brownian motions on Carnot groups. If time permits, we will discuss spectral properties and existence of spectral gaps on general Dirichlet metric measure spaces.