

Large deviations for small noise hypoelliptic diffusion bridges on sub-Riemannian manifolds

Yuzuru INAHAMA *

In this talk we study a large deviation principle of Freidlin-Wentzell type for pinned hypoelliptic diffusion measures associated with a natural sub-Laplacian on a compact sub-Riemannian manifold. To prove this large deviation principle, we use rough path theory, manifold-valued Malliavin calculus, and quasi-sure analysis (which is a potential theoretic part of Malliavin calculus).

The preprint is uploaded on arXiv Preprint Server (arXiv:2109.14841).

*Kyushu University, Japan. Email: inahama@math.kyushu-u.ac.jp