A VARIATIONAL REPRESENTATION FOR POSITIVE FUNCTIONALS OF INFINITE DIMENSIONAL BROWNIAN MOTION

Amarjit Budhiraja
Paul Dupuis

Abstract: A variational representation for positive functionals of a Hilbert space valued Wiener process $(W(\cdot))$ is proved. This representation is then used to prove a large deviations principle for the family $\{\mathcal{G}^\varepsilon(W(\cdot))\}_{\varepsilon>0}$, where $\mathcal{G}^\varepsilon$ is an appropriate family of measurable maps from the Wiener space to some Polish space.

THE FULL TEXT IS AVAILABLE HERE