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A VARIATIONAL REPRESENTATION FOR POSITIVE FUNCTIONALS OF INFINITE DIMENSIONAL BROWNIAN MOTION

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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.

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