

SPECTRAL GAP ESTIMATE FOR STABLE PROCESSES ON ARBITRARY
BOUNDED OPEN SETS

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Abstract: In the paper we prove the lower bound estimate $\lambda_2^D - \lambda_1^D \geq c(\lambda_1^D)^{-d/\alpha} (\text{diam } D)^{-d-\alpha}$ for the spectral gap of the Dirichlet fractional Laplacian $(-(-\Delta)^{\alpha/2})$ on an arbitrary bounded open set $D \subseteq \mathbf{R}^d$.

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