

SPECTRAL ASYMPTOTICS FOR FRACTIONAL LAPLACIAN

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Abstract: Consider a compact domain with the smooth boundary in the Euclidean space. Fractional Laplacian is defined on functions supported in this domain as a (non-integer) power of the positive Laplacian on the whole space restricted then to this domain. Such operators appear in the theory of stochastic processes. It turns out that the standard results about distribution of eigenvalues (including two-term asymptotics) remain true for fractional Laplacians. There are however some unsolved problems.