Nazarov, A. I.; Sheipak, I. A.
Degenerate self-similar measures, spectral asymptotics and small deviations of Gaussian processes. (English) Zbl 1244.60040

Authors’ abstract: We find the logarithmic small ball asymptotics for the $L_2$-norm with respect to degenerate self-similar measures of a certain class of Gaussian processes, including Brownian motion, the Ornstein-Uhlenbeck process and their integrated counterparts.

Reviewer: Nikolai N. Leonenko (Cardiff)

MSC:
60G15 Gaussian processes
60F10 Large deviations
60F25 $L^p$-limit theorems
60G07 General theory of stochastic processes
60G18 Self-similar stochastic processes
60G12 General second-order stochastic processes

Keywords:
Gaussian processes; small deviations; self-similar measures; spectral asymptotics; Karhunen-Loève expansion

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