BOX DIMENSION OF INTERPOLATIONS OF SELF-SIMILAR PROCESSES WITH STATIONARY INCREMENTS

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Abstract: We prove that under a general condition interpolation dimensions of H-sssi process converge in probability to $2 - H$. The result can be applied to a wide class of H-sssi processes which includes fractional Brownian motions, (α, β)-fractional stable processes or strictly stable H-sssi processes. Moreover, we prove that for an H-sssi process with continuous sample paths the same general condition implies uniform convergence in probability of sample paths of fractal interpolations to sample paths of the interpolated process.

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