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MULTIFRACTIONAL PROCESSES WITH RANDOM EXPONENT

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Abstract

Multifractional Processes with Random Exponent (MPRE) are obtained by replacing the Hurst parameter of Fractional Brownian Motion (FBM) with a stochastic process. This process need not be independent of the white noise generating the FBM. MPREs can be conveniently represented as random wavelet series. We will use this type of representation to study their Hölder regularity and their self-similarity.

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