Statistical estimation in mixed models

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Abstract

In my talk I will discuss so-called “mixed“models involving fractional Brownian motion and Wiener process. Main focus will be at statistical estimation of the Hurst parameter of fractional Brownian motion. I will show how it can be made using asymptotic behavior of mixed power variations involving increments of fractional Brownian motion and Wiener process. I will discuss quality of the estimators and illustrate it by simulation results.