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Statistical inference for the Hermite Ornstein-Uhlenbeck process

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Abstract

We will briefly present the basic properties of the Hermite process and of the associated Ornstein-Uhlenbeck process. By using the analysis on Wiener chaos, we study the behavior of the quadratic variations of the Hermite Ornstein-Uhlenbeck process, which is the solution to the Langevin equation driven by a Hermite process. We apply our results to the identification of the Hurst parameter of the Hermite Ornstein-Uhlenbeck process.