Fractional Brownian Motion - Part 2

Davide Zanni

17 May 2023

The seminar deals with some important properties of the fractional Brownian Motion. We will start to present the integration theory of Fractional Brownian Motion with Hurst index $0 < H < \frac{1}{2}$ providing the approach of symmetric integrals. Then we will focus on the study of the supremum of this stochastic process: we will see its asymptotic behavior at infinity and at zero working on its distribution. Finally we will propose an application at Hurst Phenomenon to explain the original idea which permitted the development of this topic.

Biblography: *Selected Aspects of Fractional Brownian Motion*, Ivan Nourdin.