AVVISO di SEMINARI

Stochastic calculus for fractional processes: stochastic integration, stochastic differential equations

Prof.ssa Yuliya Mishura

Head of the Department of Probability Theory, Statistics and Actuarial Mathematics, Taras Shevchenko National University of Kyiv

Abstract: (Part I) We consider elements of fractional calculus, definition, properties and representations of fractional Brownian motion (fBm), stochastic integration with respect to fBm, stochastic differential equations with fBm. Special attention will be paid to particular equations: fractional Langevin equations, fractional Cox-Ross-Ingersoll equation. Advanced topics of fractional processes: fractional irregularity, representation results, statistical applications

(Part II) We consider several advanced topics concerned with fractional Brownian motion (fBm): the behavior of maximal functionals for small values of Hurst index, integral representations with adapted integrand with respect to fBm, statistical inference for fBm-driven stochastic differential equations.

I seminari si terranno il 4 Aprile 2019 ore 14:30 e 11 Aprile 2019 ore 14:30 in Aula E terzo livello del Dipartimento Matematica e Applicazioni, Università di Napoli FEDERICO II, Complesso di Monte Sant'Angelo, Via Cintia, Napoli.