ΕΘΝΙΚΟ ΜΕΤΣΟΒΙΟ ΠΟΛΥΤΕΧΝΕΙΟ
ΣΧΟΛΗ ΕΦΑΡΜΟΣΜΕΝΩΝ ΜΑΘΗΜΑΤΙΚΩΝ ΚΑΙ ΦΥΣΙΚΩΝ ΕΠΙΣΤΗΜΩΝ
ΤΟΜΕΑΣ ΜΑΘΗΜΑΤΙΚΩΝ
Ηρώων Πολυτεχνείου 9, Πολυτεχνειούπολη Ζωγράφου, 15780 Αθήνα
☎ +(30) 2107721744, 2107721748, 2107723291
✉: tomeas@math.ntua.gr
url: http://www.math.ntua.gr

NATIONAL TECHNICAL UNIVERSITY OF ATHENS
SCHOOL OF APPLIED MATHEMATICAL AND PHYSICAL SCIENCES
DEPARTMENT OF MATHEMATICS
9 Iroon Polytechniou Str., Zografou Campus, 15780 Athens

Αθήνα, 30/5/2022

Δ Ι Α Λ Ε Ξ Η

Ομιλήτρια: Αλεξάνδρα Χρονοπούλου

https://stat.illinois.edu/directory/profile/achronop)

Τίτλος : « Discrete-time Approximation of Rough Volatility Models »

Περίληψη : “Rough” volatility models (RVM) have been introduced to describe the anti-persistent behavior of the volatility of financial assets. These are models in which the stock follows a geometric Brownian motion, with volatility described by a fractional Ornstein-Uhlenbeck process with Hurst parameter less than 1/2. In the first part of this talk, we will introduce a new framework for the estimation of the volatility process of an asset using low frequency daily option trading entries. We will apply this method to S&P 500 data and obtain estimates of the Hurst parameter that motivate the need for RVM. In the second part of the talk, we will establish the weak convergence of a novel Donsker-type scheme for RVM, which leads naturally to a Binomial tree for option pricing.

.

Η ομιλία θα δοθεί την **Παρασκευή 3 Ιουνίου 2022** και **ώρα 13:05**, στην Αίθουσα Σεμιναρίων του Τομέα Μαθηματικών, κτ. Ε΄, 2ος όροφος.

Η Επιτροπή Σεμιναρίων