*ΕΘΝΙΚΟ ΜΕΤΣΟΒΙΟ ΠΟΛΥΤΕΧΝΕΙΟ*
*ΣΧΟΛΗ ΕΦΑΡΜΟΣΜΕΝΩΝ ΜΑΘΗΜΑΤΙΚΩΝ ΚΑΙ ΦΥΣΙΚΩΝ ΕΠΙΣΤΗΜΩΝ*
*ΤΟΜΕΑΣ ΜΑΘΗΜΑΤΙΚΩΝ*
*Ηρώων Πολυτεχνείου 5*
*Πολυτεχνειούπολη Ζωγράφου, Κτήριο Ε*
*ΤΚ. 157 73, ΑΘΗΝΑ*

*NATIONAL TECHNICAL UNIVERSITY OF ATHENS*
*SCHOOL OF APPLIED MATHEMATICAL AND PHYSICAL SCIENCES*
*DEPARTMENT OF MATHEMATICS*
*5, Heroes of Polytechniou Avenue*
*Zografou Campus, E Building*
*GR.-157 73 ATHENS, GREECE*

*☎: + 30 210 772 1748, 1744, 3291 - Telefax: + 30 210 77 21775*

Αθήνα, 15/5/2018

# Δ Ι Α Λ Ε Ξ Η

**Ομιλητής**: **Victor Isakov**

**(Distinguished Professor, Department of Mathematics and Statistics, Wichita State University)**

**Τίτλος** : **«Finding volatility of financial markets from option prices »**

**Περίληψη:** We discuss a (analytical and numerical) method of finding diffusion (volatility) coefficient of the Black-Scholes equation from market data given for two expire times. We discuss the general problem and propose a linearization around constant volatility, which can be found from the Black-Scholes formula. We assume that the correction term in the volatility linearly depends on time, derive a system of one-dimensional integral equations with explicit kernels, obtain uniqueness results and use numerical solution of this system to find correction terms and to compare results with real market data.

Η ομιλία θα δοθεί την **Παρασκευή 18 Μαΐου 2018** και **ώρα 13:05**, στην Αίθουσα Σεμιναρίων του Τομέα Μαθηματικών, κτ. Ε΄, 2ος όροφος.

Η Επιτροπή Σεμιναρίων