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.-15773 ATHENS, GREECE

2: + 30 210 772 1748, 1744, 3291 - Telefax: + 30 210 77 21775

Aθήνα, 18/12/2018

ΔΙΑΛΕΞΗ

<u>Ομιλητής:</u> Georgios Fellouris (Statistics, U. Ilinois),

https://stat.illinois.edu/directory/profile/fellouri

<u>Τίτλος</u>: «Sequential Multiple Testing with Generalized Error Control»

Περίληψη: The multiple testing problem is considered, under two different error metrics, when the data for the various hypotheses are collected sequentially in independent streams. In the first one, we control the probability of at least k mistakes of any kind. In the second, we control the probabilities of at least k1 false positives and at least k2 false negatives. For each formulation, we characterize the optimal expected sample size to a first-order asymptotic approximation as the error probabilities vanish. More importantly, for each formulation we propose a novel sequential multiple testing procedure that achieves the optimal asymptotic performance under every possible signal configuration. These results are established under weak distributional assumptions which hold beyond the case of i.i.d. observations in each stream.

Η διάλεξη θα δοθεί Παρασκευή 21 Δεκεμβρίου 2018 & ώρα 13:35, στην Αίθουσα Σεμιναρίων του Τομέα Μαθηματικών, κτ. Ε΄, 2ος όροφος.

Η Επιτροπή Σεμιναρίων