ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΙΡΑΙΩΣ

ΣΧΟΛΗ ΧΡΗΜΑΤΟΟΙΚΟΝΟΜΙΚΗΣ ΚΑΙ ΣΤΑΤΙΣΤΙΚΗΣ

ΤΜΗΜΑ ΣΤΑΤΙΣΤΙΚΗΣ ΚΑΙ ΑΣΦΑΛΙΣΤΙΚΗΣ ΕΠΙΣΤΗΜΗΣ

ΠΡΟΣΚΛΗΣΗ

Σας προσκαλούμε στην **ομιλία** του **Δρ. Γαβαλάκη Λάμπρου, Université Gustave Eiffel, Laboratoire d'Analyse et Mathématiques Appliquées (LAMA), France**, η οποία θα διεξαχθεί την **Τετάρτη 4 Σεπτεμβρίου 2024, ώρα 16:00** στην **Αίθουσα 336** (3ος όροφος, Κεντρικό Κτίριο), με θέμα:

De Finetti's theorem in Statistics and Information Theory

Abstract/Περίληψη: De Finetti's representation theorem on exchangeability is a classical result in probability and statistics, which goes back to the 1930s and has found numerous applications in statistics and machine learning. It also admits a very appealing interpretation in connection with Bayesian statistics. In this talk we will recall the classical finite de Finetti bounds of Diaconis and Freedman and their connection with sampling bounds.

Next we will discuss some of the recent progress in proving finite de Finetti bounds using basic tools from information theory, an approach which belongs in the general framework of re-establishing core probabilistic results using information theoretic tools. We will also mention some of the future challenges in this area.

Short Bio: Lampros Gavalakis is a postdoctoral fellow of the MathInGreaterParis programme, which is cofunded by the Marie Sklodowska-Curie Actions. He received his Ph.D. from the Engineering Department of the University of Cambridge, where he was working in the Signal Processing and Communications Laboratory, and his undergraduate degree in computer science from Athens University of Economics and Business. He is a recipient of the 2023 Jack Keil Wolf ISIT Student Paper Award. His research interests lie broadly in information theory and probability, and include in particular entropy inequalities and information-theoretic proofs of probabilistic results.