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ΣΧΟΛΗ ΕΦΑΡΜΟΣΜΕΝΩΝ ΜΑΘΗΜΑΤΙΚΩΝ ΚΑΙ ΦΥΣΙΚΩΝ ΕΠΙΣΤΗΜΩΝ
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Αθήνα, 24/4/2023

Δ Ι Α Λ Ε Ξ Η

Ομιλητής: **Κωνσταντίνος Δαρειώτης**

(School of Mathematics, U. Leeds, https://eps.leeds.ac.uk/maths/staff/6172/dr-konstantinos-dareiotis)

Τίτλος : **«Regularisation of differential equations by multiplicative fractional noises»**

Περίληψη: In this talk, we consider differential equations perturbed by multiplicative fractional Brownian noise. Depending on the value of the Hurst parameter H, the resulting equation is pathwise viewed as an ordinary ($H>1$), Young ($H \in (1/2, 1)$) or rough ($H \in (1/3, 1/2)$) differential equation. In all three regimes we show regularisation by noise phenomena by proving the strongest kind of well-posedness for equations with irregular drifts: strong existence and path-by-path uniqueness. In the Young and smooth regime $H>1/2$ the condition on the drift coefficient is optimal in the sense that it agrees with the one known for the additive case. In the rough regime $H\in(1/3,1/2)$ we assume positive but arbitrarily small drift regularity for strong well-posedness, while for distributional drift we obtain weak existence. This is a joint work with Máté Gerencsér.

Η ομιλία θα δοθεί την **Παρασκευή 28 Απριλίου 2023** και **ώρα 13:05**, στην Αίθουσα Σεμιναρίων του Τομέα Μαθηματικών, κτ. Ε΄, 2ος όροφος.

Η Επιτροπή Σεμιναρίων