> Friday, October 27th, 2022
13:30 – 14:30
IRISK RESEARCH SEMINAR

IÉSEG SCHOOL OF MANAGEMENT

EMPOWERING CHANGEMAKERS FOR A BETTER SOCIETY

‘ADDITIVE CHOICE MODEL’

BY PAVLO BLAVATSKYY - MBS

ABSTRACT

A new model of probabilistic choice is derived from two axioms. The “sum rule” axiom is imposed on binary choice probabilities. This axiom is the same as the product rule in Luce’s choice model (strict utility or multinomial logit) with probabilities being added rather than multiplied. A novel version of the independence from irrelevant alternatives is imposed in multinomial choice—the difference between the probability of choosing alternative A and the probability of choosing alternative B is independent from all other alternatives in a choice set. Analytical convenience of the proposed model is illustrated in application to normal form games. Additive quantal response equilibrium in two-player games is characterized by a system of linear equations that yields a closed-form analytical solution (whereas logit quantal response equilibrium often requires numerical computations).

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