Recent Advances in Mathematical Finance and Related Fields

Since the seminal works of Harry Markowitz in the 50's on portfolio optimization and those of Fischer Black and Myron Scholes in the 70's on option pricing, mathematics has played a central role in Finance. Conversely, these complex financial applications have facilitated the development of various mathematical theories, as exemplified by the revolutionary thesis Théorie de la spéculation (1900) of Louis Bachelier, which laid the mathematical foundations of the Brownian motion. Nowadays, Mathematical Finance is a broad and interdisciplinary field. It includes research in wide ranging topics such as optimal investment, asset pricing, risk measures, stochastic optimal control, backward stochastic differential equations, rough path theory, random networks, optimal transport, stochastic games, mean field games and, more recently, machine learning.

This minisymposium will bring together researchers, ranging from early career mathematicians to established experts, to discuss recent developments, open problems, and new directions in mathematical finance and related fields.

Speakers:

Yuri F. Saporito (FGV EMAp) Rodrigo Targino (FGV EMAp) Matheus Secco (FGV EMAp) Vincius Albani (UFSC) Jorge Zubelli (Khalifa University) Max O. Souza (UFF) Cristiano Vale (UFMG) Beatrice Acciaio (ETH)