SCF 2025 PROGRAM

All lecture rooms at ISEG, Building Quelhas, floors 2 and 4.

Floor 2: Auditorium Caixa Geral de Depósitos (AUD. CGD)

Floor 4: Amphitheatre **Novo Banco** (AMPH. NB); Amphitheatre **1** (AMPH. 1), Amphitheatre **3** (AMPH. 3), Amphitheatre **4** (AMPH. 4)

Tuesday, September 2

At floor 2, AUD. CGD

8:15-9:00	**Registration**
9:00-9:25	**Opening Session**
9:30-10:10	Plenary 1 – **Martin Schweizer:** *Dynamic monotone mean-variance portfolio optimisation with independent returns*
10:20-11:00	Plenary 2 – **Emmanuel Gobet:** *Quantitative modelling of risks in Decentralized Finance*

***Chair morning session*: Ernst Eberlein**

11:10-11:35	**Coffee Break**

11:35-13:15 *At floor 4* Parallel Sessions **1**

Session 1A –**MS 1** - **Memory in Quantitative Finance I** Room: *AMPH. 1* ***Chair: Eduardo Abi Jaber***	Session 1B – **MS 2**- **Recent approaches to Portfolio Optimization, Interest Rate Determination, Option Pricing and Intensity Graduation in Multiple State Models –** Room: *AMPH. NB* ***Chair: Manuel L. Esquível***	Session 1C - **ThS 1** – **Stochastic models I** Room: *AMPH. 3* ***Chair:* Nuno M. Brites**
Sturmius Tuschmann: *Stochastic Graphon Games with Memory*	**Marta Faias**: *Measuring the Impact of Socially Responsible Investments on Portfolio Performance Using the Shapley Value*	**Sven Karbach**: *Semi-static hedging of Volumetric Risk in Energy Markets*
Leo Parent: *The discrete-time 4-factor PDV model: calibration under $\mathcal{P}$and $\mathcal{Q}$*	**Raquel Gaspar**: *Option Pricing: quality versus quantity in the era of Big Data*	**Roberto Baviera**: *Is Spearman's ρ a robust measure of correlation for financial time series?*
Dimitri Sotnikov: *Martingale property and moment explosions in signature volatility models*	**Gracinda Guerreiro**: *Risk-Adjusted Estimation and Graduation of Transition Intensities for Disability and Long-Term Care Insurance: A Multi-State Model Approach*	**Pietro Manzoni**: *The role of expert judgement in insurance internal model for operational risk*
Eduardo Abi Jaber: *Signature Approach for Path dependent Hedging with Frictions*	**Manuel L. Esquível**: *On Model Improvement Algorithms: an Application to Interest Rates Determination*	**Pavel Gapeev**: *Bayesian quickest double disorder detection problems with linear delay penalty*

3:15-14:30	**Lunch** *at Rooftop*

At floor 2, AUD. CGD

14:35-15:15 Plenary 3 – **Roxana Dumitrescu:** *Advances in the Linear Programming Approach for Mean-Field Games and Multi-Scale MFGs with Common Noise*

15:25-16:05 Plenary 4 –**Matthias Ehrhardt:** *A novel Space Mapping approach for the calibration of financial models*

Chair afternoon session:
Daniel Ševčovič

16:15-16:40 **Coffee Break**

16:45-18:25 *At floor 4* Parallel Sessions **2**

Session 2A – **MS 3** - **Memory in Quantitative Finance** II Room: *AMPH. 1* ***Chair: Eduardo Abi Jaber***	Session 2B – **MS 4** - **ECMI SIG: Computational Methods for Finance and Energy Markets I** Room: *AMPH. NB* ***Chair: Carlos Vázquez***	Session 2C –**MS 5** - **Interest rate markets after Libor** Room: *AMPH. 3* ***Chair: Thorsten Schmidt***
Sergio Pulido: *Polynomial Volterra processes*	**Gianluca Fusai**: *Navigating Supply Shocks: Sector Resilience and Production Prices through Stochastic Input-Output Modeling*	**David Skovmand**: *Term Structure Modeling of SOFR: Evaluating the Importance of Scheduled Jumps*
Elie Attal: *Simulating Affine Volterra Processes via Inverse Gaussian*	**Edouard Motte**: *The Volterra Stein-Stein model with stochastic interest rates*	**Raquel Gaspar**: *Survival Analysis for Credit Risk: A Dynamic Approach for Basel IRB Compliance*
Christian Bayer: *American option pricing in rough volatility models.*	**Josha A. Dekker**: *Optimal stopping with randomly arriving opportunities to stop*	***Thorsten Schmidt***: *Affine modelling in term structure markets with stochastic discontinuities*
Alessandro Bondi: *Fredholm Approach to Nonlinear Propagator Models*		

18:35 **Welcome drink** *at Rooftop*

Wednesday, September 3

At floor 2, AUD. CGD

9:00-09:40	Plenary 5 – **Bruno Dupire:** *Some Financial Applications of the Functional Itô Calculus*	***Chair session:*** **Laura Ballotta**
9:50-11:00 (20 + 10 +40)	**Celebration in honour of Prof. Albert Shiryaev** + Plenary 6 –**Albert Shiryaev:** *On parameter estimation of diffusion processes by maximum likelihood method*	***Chair celebration:*** **Martin Schweizer**
11:10 –11:35	**Coffee Break**	

11:35-13:15 *At floor 4* Parallel Sessions **3**

Session 3A – **MS 6** - **Diffusion models with dependency structure and applications** Room: *AMPH. 1* ***Chair: Armand Bernou***	Session 3B - **ThS 2** – **Mean Field Games, Stochastic Control and Portfolio Optimization I** Room: *AMPH. NB* ***Chair: Raquel Gaspar***	Session 3C – **ThS 3** – **Stochastic models II** Room: *AMPH. 3* ***Chair: Manuel Guerra***
Yating Liu: *Supervised Classification for Interacting Particles*	**Hugo Ramirez**: *Benchmarking of Index Funds with Transaction Costs*	**Josep Vives**: *Computation of Greeks under rough Volterra stochastic volatility models using Malliavin Calculus*
Loic Bethencourt: *Brownian Particles Controlled by their Occupation Measure*	**Javier Garcia**: *Daily leverage and long-term investing using leveraged exchange traded funds*	**Lilian Hu**: *New perspectives on analytic solvability of stochastic volatility models*
Armand Bernou: *Convex Order for the McKean-Vlasov Equation with Common Noise and Applications*	**Amal Omrani**: *Beyond the Leland strategies*	**Milos Bozovic**: *Intraday Jumps and 0DTE Options:Pricing and Hedging Implications*
	Vesna Rajic: *Application of Generalized Linear Models in Assessing the influence of Acquisition Costs on Insurance Premiums*	

13:15-14:30	**Lunch** *at Rooftop*

	At floor 2, AUD. CGD	
14:35-15:15	Plenary 7 – **Nizar Touzi:** *Model risk hedging and path-dependent distributionally Robust Control*	***Chair afternoon session:*** **Carlos Vázquez**
15:25-16:05	Plenary 8 – **Peter Tankov:** *Climate risks, tipping points and emission reduction*	
16:15-16:40	**Coffee Break**	

16:45-18:25 *At floor 4* Parallel Sessions **4**

Session 4A –**MS 7** – **ECMI SIG: Computational Methods for Finance and Energy Markets II** Room: *AMPH. 1* ***Chair: Matthias Ehrhardt***	Session 4B – **MS 8** – **Time-Inhomogeneous Lévy (Additive) Processes: Applications in Finance and Energy** Room: *AMPH. NB* ***Chair: Michele Azzone***	Session 4C – **ThS 4** – **Stochastic Models III** Room: *AMPH. 3* ***Chair: Carlos Oliveira***
Álvaro Leitao Rodríguez: *Deep Joint Learning valuation of Bermudan Swaptions*	**Michele Azzone**: *Additive normal tempered stable processes and additive subordination for equity derivatives*	**Maxime Guellil**: *Fourier-Laplace Transform Discontinuities and Computation in the Volterra Stein-Stein Model: A Fredholm–Wishart Approach*
Jing Wang: *Controllable Generation of Implied Volatility Surfaces with Variational Autoencoders*	**Laura Ballotta**: *Multivariate Additive Subordination with Applications in Finance*	**Gonçalo dos Reis**: *Simulation of mean-field SDEs: some recent results*
Ray Ruining Wu: *Efficient high-order smoothing methods for rainbow options on sparse grids*	**Guixin Liu**: *Neural Term Structure of Additive Process for Option Pricing*	**Miguel Reis**: *Stochastic Differential Equations Harvesting Models: Simulation and Numerical Solution*
Oliver Rúas-Barrosa: *Power Purchase Agreements: a Renewable Energy approach*	**Marco Vitelli**: *Overcoming misconceptions about local volatility: exact prices lead to sound continuous Markovian models*	

Thursday, September 4

At floor 2, AUD. CGD

9:00-09:40	Plenary 9 – **Carlos Vázquez:** *Some recent advances in the pricing of renewable energy certificates and some derivatives*	***Chair session:*** **Matthias Ehrhardt**
9:50-11:00 (20 + 10 +40)	**Celebration in honour of Prof. Ernst Eberlein** + Plenary 10 – **Ernst Eberlein**: *The term structure of implied correlations between S&P and VIX markets*	***Chair celebration:*** **Thorsten Schmidt**
11:10 –11:35	**Coffee Break**	

11:35-13:15 *At floor 4* Parallel Sessions **5**

Session 5A – **MS 9** - **Advanced Pricing Models and Numerical Approaches for Emission Allowances and Renewable Energy Certificates** Room: *AMPH. 1* ***Chair: J.-F. Chassagneux***	Session 5B –**MS 10** - **Risk management for financial and real assets** Room: *AMPH. NB* ***Chair: Ana Monteiro***	Session 5C – **ThS 5** - **Machine Learning Approaches in Financial Stochastics** Room: *AMPH. 3* ***Chair**: **Álvaro Leitao Rodríguez***	Session 5D –**ThS 6** – **Mean Field Games, Stochastic Control and Portfolio Optimization II** Room: *AMPH. 4* ***Chair: Gonçalo dos Reis***
Stéphane Crépey: *Sensitivity Analysis of Emissions Markets: A Discrete-Time Radner Equilibrium Approach*	**Pedro Godinho**: *Regression-Based Estimation of State-Dependent Volatility in Project Simulation Models*	**Jean-Loup Dupret**: *Deep Learning for Continuous-time Stochastic Control with Jumps*	**Josha Dekker**: *Stochastic optimal control with randomly arriving control moments*
Liam Welsh: *Modelling Equilibrium Behaviour in Solar REC and Offset Credit Markets*	**Nuno Silva**: *Using Adaptive LASSO to Improve Portfolio Strategies*	**Aleksandar Arandjelovic:** *Algorithmic Strategies in Continuous-Time Hedging and Stochastic Integration*	**Tao Pang**: *Optimal Portfolio Choice with Comfortable Consumption*
Yassin El-Hatri: *Modelling the Role of Hedgers and Speculators*	**Ana Monteiro**: *Estimating default intensity using Credit Default Swap (CDS) data*	**Diogo Franquinho**: *Neural network empowered liquidity pricing in a two-price economy under conic finance settings*	**Christoph Czichowsky**: *Duality theory for utility maximisation in Volterra kernel models for transient price impact*
	António Santos: *Hamiltonian Monte Carlo simulations to estimate extended stochastic volatility models within a time-deformed intraday framework*		

13:15-14:30	**Lunch** *at Rooftop*	
At floor 2, AUD. CGD		
14:35-15:15	Plenary Talk 11 – **Jean-François Chassagneux:** *An optimal transport approach to multiple quantile hedging problems*	***Chair session:*** **João Guerra**
15:20-15:45	**Coffee-Break**	
15:50	**Group Photo** *- floor 3 (outside staircase)*	
16:00	***Random* Walk from ISEG to Cais da Rocha de Conde de Óbidos** (20 min)	
16:45 - 18:45	**Scenic 2-hour Tagus River cruise**	
18:45 - 19:15	**Return to ISEG** (*by bus*)	
19:45	**Conference dinner at** *Salão Nobre,* ISEG	

Friday, September 5

At floor 2, AUD. CGD

9:00-09:40	Plenary 12 – **Peter Spreij:** *Polynomial approximation of discounted moments*	***Chair morning session:*** **João Janela**
9:50-10:30	Plenary 13 – **Daniel Ševčovič:** *Partial Integro-Differential Equations and their Applications in Financial Modeling*	

10:40-11:05 **Coffee Break**

11:05-12:45 *At floor 4* Parallel Sessions **6**

Session 6A –**MS 11** - **Advances on mean field theory with applications to generative AI and energy transition** Room: *AMPH. 1* ***Chair: TBA***	Session 6B – **MS 12** - **Machine Learning and Information Geometry in Finance** Room: *AMPH. NB* ***Chair: Amine Aboussalah***	Session 6C– **ThS 7** – **Portfolio Management, Insurance and investments** Room: *AMPH. 3* ***Chair*****:** ***Alexandra Moura***
Luciano Campi: *Continuous-time persuasion by filtering*	**Leonard Wong:** *Macroscopic Properties of Equity Markets: Stylized Facts and Portfolio*	**Martin Arnaiz**: *A Stochastic Mirror Descent Algorithm for Risk Budgeting Portfolios*
Mehdi Talbi: *Sannikov's contracting problem with many Agents*	**Amine Aboussalah**: *Robust Financial Modeling: A Principled Framework for Generative Data Augmentation*	**Alessandro Staino**: *Minimum capital requirement for non-life insurance with risk budgeting portfolios*
Yufei Zhang: *Continuous-time mean field games: a primal-dual characterization*	**Abderrahmane Abbou:** *Dynamic Intervention Policy for Financially Distressed Firms with Noisy Returns*	**Jelena Stanojevic**: *Assessing the Efficiency of Insurance Companies Using Fuzzy Data Envelopment Analysis: Evidence from Serbia*
Bianca Marin Moreno: *Online Convex Reinforcement Learning and Applications to Energy Management Problems*		**Dragana Radojicic**: *Benford's Law: Distributional Properties, Simulations, and Real-World Conformity Tests*

At floor 2, AUD. CGD

12:50-13:15 **Closing Session**

3:15-14:30 **Lunch and Port Wine Farewell** *at Rooftop*