

## XXXV CONVEGNO AMASES PROGRAMMA



UNIVERSITÀ DI PISA

**Giovedì 15 settembre**

**09:00-09:30 Registrazione**

**09:30-10:00 Inaugurazione**

### **Sessione Plenaria**

**10:00-11:00 Sala Pacinotti - Relazione invitata: Herbert Dawid (Bielefeld University, Germany): *An Agent-Based Perspective on Technological Change and Economic Growth***

Chairman: Gian Italo Bischi

**11:00-11:30 Coffee Break**

### **Sessioni Parallele**

***11:30-13:10 Teoria dei Giochi e delle Decisioni - Sala B***

Chairman: Luciano Stefanini

11:30-11:50 Arsen Palestini, **Ilaria Poggio**: *On cooperative games with negative externality an application to International Economic Agreements*

11:50-12:10 Matteo Brunelli, **Michele Fedrizzi**: *Proprietà caratterizzanti per gli indici di inconsistenza nelle relazioni di preferenza*

12:10-12:30 Andrea Collevocchio, Codina Cotar, **Marco Li Calzi**: *On the largest group in some exchangeable partition processes*

12:30-12:50 Aurélien Baillon, Han Bleichrodt, **Alessandra Cillo**: *Testing Regret Theory Using Predicted Intransitivities of Preferences*

12:50-13:10 **David Carfi**: *Coopetitive Games and Greek Crisis*

***11:30-13:10 Matematica per l'Economia - Sala Galilei***

Chairman: Lucia Maddalena

11:30-11:50 **Viviana Fanelli**, Lucia Maddalena: *A comparison of models for renewable energy technology diffusion: the non-uniform influence effects*

11:50-12:10 Elisabetta Allevi, Giorgia Oggioni, **Rossana Riccardi**, Marco Rocco: *Evaluating the carbon leakage effect on the Italian cement sector*

12:10-12:30 Elisabetta Allevi, Francesca Bonenti, **Giorgia Oggioni**: *Modeling the European Emission Trading Scheme for the Italian electricity market*

12:30-12:50 Michele Longo, **Alessandra Mainini**: *Political turnover when competence is normally distributed*

12:50-13:10 Paolo Dai Pra, Fulvio Fontini, **Elena Sartori**, Marco Tolotti: *Price formation in mean field games under market frictions and social interactions*

### **11:30-13:10 Finanza Matematica - Sala Pacinotti**

Chairman: Marco Frittelli

11:30-11:50 **Tiziano De Angelis**: *Galerkin-type approximation of the HJM forward interest rates dynamics and applications to the analytical pricing of American Bond Options*

11:50-12:10 Antonella Basso, **Stefania Funari**: *SRI vs non SRI: An empirical analysis of European mutual funds*

12:10-12:30 **Marina Marena**: *Tips for hybrid models*

12:30-12:50 Paolo Foschi, **Stefano Pagliarani**, Andrea Pascucci: *Analytical approximation for the transition density of arithmetic asian options under local volatility models*

12:50-13:10 **Rosella Giacometti**, Riccardo Pianeti: *Estimating the joint probability of default using CDS and bond data*

### **13:10-14:30 Pranzo**

#### **Sessioni Parallele**

### **14:30-17:10 Teoria dei Giochi e delle Decisioni - Sala B**

Chairman: Michele Fedrizzi

14:30-14:50 Alessandra Buratto, **Luca Grosset**: *Advertising plan for a licensed brand with stochastic effects*

14:50-15:10 **Alfio Giarlotta**, Salvatore Greco: *Incomplete Preference Structures: the Necessary and the Possible I*

15:10-15:30 Giulio Bottazzi, **Pietro Dindo**: *Global results on wealth selection in assets market*

15:30-15:50 **Bice Cavallo**, Livia D'Apuzzo, Massimo Squillante: *Pairwise comparisons and weighting vector for the alternatives*

15:50-16:10 **Silvia Angilella**, Salvatore Corrente, Salvatore Greco, Roman Slowinski: *Multicriteria customer satisfaction analysis with interacting criteria*

16:10-16:30 **Carlo Alberto Magni**: *Using average internal rates of return for investment performance measurement and attribution*

16:30-16:50 **Luciano Stefanini**: *New tools in Fuzzy Calculus with Fuzzy Numbers*

16:50-17:10 **Maria Letizia Guerra**, Carlo Alberto Magni, Luciano Stefanini: *Average internal rate of return with interval arithmetic*

### **14:30-17:10 Matematica per l'Economia - Sala Galilei** Chairman:

Raimondo Manca

14:30-14:50 **Francesca Bonenti**, Magali Ernestine Zuanon: *Electricity markets under linear price/demand and quadratic costs: equilibrium à la Cournot and Supply Function Equilibrium*

14:50-15:10 Guglielmo D'Amico, **Giuseppe Di Biase**, Raimondo Manca: *Generalized Inequality Indices: a Real Life Application*

15:10-15:30 Serena Brianzoni, Cristiana Mammana, **Elisabetta Michetti**: *Variable elasticity of substitution in a discrete time Solow Swan growth model with differential saving*

- 15:30-15:50 Angelo Antoci, **Mauro Sodini**, Luca Zarri: *Nonlinear dynamics in an OLG model with relational goods*
- 15:50-16:10 Davide La Torre, **Simone Marsiglio**, Fabio Privileggi: *Fractals and Self Similarity in Economics - the Case of a Stochastic Two-Sector Growth Model*
- 16:10-16:30 **Giorgio Fabbri**, Silvia Faggian, Giuseppe Freni: *On the Mitra-Wan forest management problem in continuous time*
- 16:30-16:50 **Massimiliano Ferrara**: *A note on convergence speed and population in the AK model with habit formation*
- 16:50-17:10 Fabrizio Durante, **Roberto Ghiselli Ricci**: *A notion of positive dependence for bivariate vectors*

### **14:30-17:10 Finanza Matematica - Sala Pacinotti**

Chairman: Paolo Pianca

- 14:30-14:50 Mariyan Milev, Pierluigi Novi Inverardi, **Aldo Tagliani**: *Laplace Transform and finite difference methods for the Black Scholes equation*
- 14:50-15:10 José Da Fonseca, **Alessandro Gnoatto**, Martino Grasselli: *A multifactor Libor market model*
- 15:10-15:30 **Juan M. Montes**: *Computable pricing in continuous-time MC term structure models: a combined analytic and simulations-based approach*
- 15:30-15:50 **Silvia Muzzioli**: *Volatility measures and variance risk premium: evidence from the Italian market*
- 15:50-16:10 **Maria Cristina Miglionico**, **Fernando Parillo**: *A BP neural network application in bank credit risk management system*
- 16:10-16:30 Federico M. Bandi, **Roberto Renò**: *Price and volatility co-jumps*
- 16:30-16:50 **Emanuele Borgonovo**: *Sensitivity measures for risk profiles*

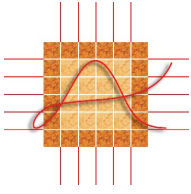
### **17:10-17:30 Coffee Break**

## **Sessione Plenaria**

### **17:30-18:45 Metodi per la valutazione della ricerca - Sala Pacinotti**

Chairman: Marco Li Calzi

- 17:30-17:55 Giove Silvio, Salvatore Greco, **Benedetto Matarazzo**: *A new index based on the level-dependent Choquet integral to evaluate scientific research outputs*
- 17:55-18:20 Marta Cardin, **Marco Corazza**, Stefania Funari, Silvio Giove: *How to measure scientific research output: h-index vs scoring rule*
- 18:20-18:45 **Marco Frittelli**, Ilaria Peri : *From risk measures to research measures*



## XXXV CONVEGNO AMASES PROGRAMMA



UNIVERSITÀ DI PISA

Venerdì 16 settembre

### Sessioni Parallele

#### **08:40-10:00 Finanza Matematica - Sala Pacinotti**

Chairman: Graziella Pacelli

- 08:40-09:00 Guglielmo D'Amico, **Filippo Petroni**: *Semi-Markov Models for price changes*  
09:00-09:20 Laura Monti, **Andrea Pascucci**: *Arithmetic American Asian options*  
09:20-09:40 **Fabio Tramontana**, Frank Westerhoff, Laura Gardini: *Structurally unstable Dynamics in a financial market model*  
09:40-10:00 **Martina Nardon**, Paolo Pianca: *Prospect theory: an application to European option pricing*

#### **08:40-10:00 Matematica per l'Economia - Sala Galilei**

Chairman: Massimiliano Ferrara

- 08:40-09:00 Gian Italo Bischi, Fabio Lamantia, **Davide Radi**: *An evolutionary model of fisheries with interacting species*  
09:00-09:20 Raouf Boucekkine, **Giorgio Fabbri**, Patrick A. Pintus: *Leap frogging, growth reversals and welfare*  
09:20-09:40 Guglielmo D'Amico, Giuseppe Di Biase, **Raimondo Manca**, Giovanni Salvi: *Influence of sectorial interdependence to credit risk evolution*  
09:40-10:00 Maria B. Chiarolla, **Giorgio Ferrari**, Frank Riedel: *Generalized Kuhn Tucker Conditions for Stochastic Irreversible Investments with Limited Resources*

#### **08:40-10:00 Ottimizzazione - Sala B**

Chairman: Alberto Cambini

- 08:40-09:00 **Elisa Pagani**: *On generalized convexity for sets and vector valued functions*  
09:00-09:20 **Monica Bianchi**, Gabor Kassay, Rita Pini: *Conditioning for optimization problem under general perturbations*  
09:20-09:40 Elisabetta Allevi, Igor V. Konnov, **Marco Rocco**: *Existence results for generalized vector equilibrium problems on unbounded sets*  
09:40-10:00 **Giuseppe Caristi**: *About Pareto minimum points of a system of equations*

## Sessione Plenaria

### 10:00-11:00 Sala Pacinotti - Relazione invitata:

**Paolo Guasoni** (Boston University, U.S.A. e Dublin City University):

*Transaction Costs, Trading Volume, and the Liquidity Premium*

Chairman: Sara Biagini

### 11:00-11:30 Coffee Break

## Sessioni Parallele

### 11:30-13:10 Finanza Matematica - Sala Pacinotti

Chairman: Stefano Herzel

11:30-11:50 **Massimo Costabile**: *A fast and accurate lattice model to price options under variance gamma process*

11:50-12:10 Marco Papi, **Alessandro Ramponi**, Sergio Scarlatti: *Higher order granularity adjustment for portfolio credit risk*

12:10-12:30 **Giovanni Salvi**, Raimondo Manca, Guglielmo D'Amico: *Multivariate Semi-Markov Process for Counterparty Credit Risk*

12:30-12:50 **Asmerilda Hitaj**, Lorenzo Mercuri: *Higher-moment portfolio selection using multivariate Variance Gamma models*

12:50-13:10 Marco Frittelli, Marco Maggis, **Iaria Peri**: *On a class of quantile-type risk measures*

### 11:30-13:10 Matematica per l'Economia - Sala Galilei

Chairman: Fabrizio Cacciafesta

11:30-11:50 Salvatore Federico, **Elisa Tacconi**: *HJB equations for the optimal control of differential equations with delay in the control variable*

11:50-12:10 **Maddalena Manzi**, Biljana Mihailovic: *A new property of Choquet integrals*

12:10-12:30 Paolo Mattana, Giovanni Bella, **Beatrice Venturi**: *Multiple steady states and endogenous cycles in a IS-LM model with a negative interest elasticity of savings*

12:30-12:50 Francesca Campolongo, Cariboni Jessica, Marchesi Massimo, Marco Petracco Giudici, **Stefano Zedda**: *Macroeconomics cost-benefit analysis of alternative minimum capital requirements*

*scenarios and of the introduction of deposit guarantee schemes and/or resolution funds.*

12:50-13:10 Rauf Boucekkine, Giorgio Fabbri, **Fausto Gozzi**: *Life span and the problem of optimal population size*

### 11:30-13:10 Ottimizzazione - Sala B

Chairman: Monica Bianchi

11:30-11:50 **Riccardo Cambini**, Claudio Sodini: *On the minimization of a class of generalized linear functions on a flow polytope*

11:50-12:10 Daniela Favaretto, Luca Grosset, **Bruno Viscolani**: *Determining advertising exposures for a seasonal good in a heterogeneous market*

12:10-12:30 **Giovanni Paolo Crespi**, Ivan Ginchev, Matteo Rocca: *Minty variational principle in vector and set optimization*

12:30-12:50 **Marida Bertocchi**, Elisabetta Allevi, Francesca Maggioni: *The value of information in stochastic programming*  
12:50-13:10 **Salvatore Federico**: *Problemi di controllo con ritardo con applicazioni in economia e finanza*

**13:10-14:30 Pranzo**

### Sessione Plenaria

**14:30-15:30 Sala Pacinotti - Relazione invitata:**  
**Maccheroni Fabio Angelo** (Università Bocconi, Italy)  
*Ambiguity and Robust Statistics*  
Chairman: Achille Basile

### Sessioni parallele

**15:30-16:50 Finanza Matematica - Sala Pacinotti**  
Chairman: Lorenzo Peccati

15:30-15:50 **Simone Cerreia-Vioglio**, Fabio Maccheroni, Massimo Marinacci, Luigi Montrucchio: *Risk Measures: Rationality and Diversification*  
15:50-16:10 Fabio Bellini, **Emanuela Rosazza Gianin**: *Haezendonck risk measures and Orlicz quantiles*  
16:10-16:30 Anna Battauz, **Marzia De Donno**, Fulvio Ortu: *Envelope theorems in Banach lattices*  
16:30-16:50 **Fabio Bellini**: *Some remarks on stochastic dominance option pricing bounds*

**15:30-16:50 Ottimizzazione - Sala B**  
Chairman: Bruno Viscolani

15:30-15:50 **Alessandra Buratto**, D'Alpaos Chiara: *Multiperiod optimal mix in the interconnection of drinking water sources*  
15:50-16:10 Giorgia Oggioni, Simona Pireddu, **Rossana Riccardi**: *Do environmental regulations matter? Evidences from the world cement sector*  
16:10-16:30 **Roy Cerqueti**, Paolo Falbo, Cristian Pelizzari, Federica Ricca, Andrea Scozzari: *A mixed integer linear programming approach for Markov chain bootstrapping*  
16:30-16:50 Monica Bianchi, **Alessandra Cornaro**, Anna Torriero: *A majorization method for localizing graph topological indeces*

**15:30-16:50 Teoria dei Giochi e delle Decisioni - Sala Galilei**  
Chairman: Silvano Holzer

15:30-15:50 **Marco Dall'Aglio**, Camilla Di Luca: *A subgradient algorithm in fair division bargaining and cooperative game theory*  
15:50-16:10 Cesarino Bertini, **Gianfranco Gambarelli**, Izabella Stach: *Some values based on sub-coalitions*  
16:10-16:30 **Alfio Giarlotta**, Salvatore Greco: *Incomplete preference structures: the necessary and the possible II*

16:30-16:50 Mauro Bambi, **Cristina Di Girolami**, Fausto Gozzi, Salvatore Federico: *On the Consequences of Flexible Investment Projects in an Endogenous Growth Model*

**16:50-17:10 Coffee break**

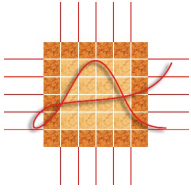
### **Sessione Plenaria**

**17:10-17:30 Sala Pacinotti - Quantitative finance at IASON - Antonio Castagna (IASON)**

Chairman: Emanuele Vannucci

**17:30-18:30 Assemblea soci**

**20:00 Cena sociale**



## XXXV CONVEGNO AMASES PROGRAMMA



UNIVERSITÀ DI PISA

**Sabato 17 settembre**

### Sessioni parallele

#### **09:00-10:00 Matematica Attuariale - Sala Galilei**

Chairman: Flavio Pressacco

09:00-09:20 **Francesca Di Gregorio**, Marco Pirra: *A risk based model for the calculation of the Solvency Capital Requirement, Life and Market modules*

09:20-09:40 Gian Paolo Clemente, **Paola Biffi**: *Selecting stochastic mortality models for the Italian case*

09:40-10:00 Patrizia Gigante, Liviana Picech, **Luciano Sigalotti**: *Credibility and HGLM in Reserving*

#### **09:00-10:00 Matematica per l'Economia - Sala B**

Chairman: Franco Nardini

09:00-09:20 **Davide Provenzano**: *A wholesale electricity market framework with bilateral trading*

09:20-09:40 **Luisa Cutillo**, Giuseppe De Marco, Chiara Donnini: *Financial Contagion Under Endogenous and Exogenous Shocks*

09:40-10:00 **Stefano Zedda**, Giuseppina Cannas, Marco Petracco, Jessica Cariboni: *Is interbank matrix minimum entropy a too strong hypothesis? An uncertainty test*

#### **09:00-10:00 Finanza Matematica - Sala Pacinotti**

Chairman: Maria B. Chiarolla

09:00-09:20 **Vittorio Moriggia**: *Decision support tool for asset-liability manager*

09:20-09:40 **Lorella Fatone**, Francesca Mariani, Maria Cristina Recchioni, Francesco Zirilli: *Highly performing algorithms to price options based on wavelet expansion*

09:40-10:00 Lorella Fatone, Francesca Mariani, **Maria Cristina Recchioni**, Francesco Zirilli  
*A multiscale SABR model*

### Sessione Plenaria

#### **10:00-11:00 Sala Pacinotti – Relazione invitata:**

**Dinh The Luc** (Université d'Avignon, France): *Variable preferences and existence of maximal elements*

Chairman: Elisabetta Allevi



## 11:00-11:30 Coffee Break

### Sessioni parallele

#### **11:30-13:30 Finanza Matematica - Sala Pacinotti**

Chairman: Andrea Consiglio

11:30-11:50 Adrian Roy L. Valdez, **Tiziano Vargiolu**: *Optimal portfolio and utility-indifference pricing and hedging in a regime-switching model*

11:50-12:10 **Sara Biagini**: *Admissible Strategies in semimartingale portfolio optimization*

12:10-12:30 **Andrea Roncoroni**, Rachid Id Brik: *Static hedging of multiplicative risk*

12:30-12:50 **Maria B. Chiarolla**, Giorgio Ferrari, Ulrich G. Haussmann: *From irreversible investment to American option pricing optimal stopping back and forth*

12:50-13:10 Francesco Menoncin, **Elena Vigna**: *A note on time-consistent mean-variance policies*

13:10-13:30 **Rocco Roberto Cerchiara**: *Model risk and hindcast testing in claim reserving*

#### **11:30-13:30 Matematica per l'Economia - Sala B**

Chairman: Antonio Villanacci

11:30-11:50 **Andrea Collevocchio**, Marco Li Calzi: *The probability of nontrivial common knowledge*

11:50-12:10 Matthew Hoelle, **Marina Pireddu**, Antonio Villanacci: *A Simple Model of Restricted Participation with Real Assets*

12:10-12:30 **Francesca Mariani**, Francesco Zirilli: *Network centric solution of an assignment problem for a team of agents*

12:30-12:50 Rainer Andergassen, **Franco Nardini**, Massimo Ricottilli: *Innovation, specialisation and growth in a model of structural change*

12:50-13:10 Livio C. Piccinini, **Maria Antonietta Lepellere**, T.F. Margherita Chang: *Partitioned Frames in Bak Sneppen Models*

13:10-13:30 **Giuseppina Cannas**, Giovanni Masala, Marco Micocci: *A stochastic model for the sustainable investment policy in a defined benefit pension fund*

#### **11:30-13:30 Matematica Attuariale - Sala Galilei**

Chairman: Anna Rita Bacinello

11:30-11:50 **Guglielmo D'Amico**: *On a Markov modulated risk model with stochastic interest rate*

11:50-12:10 **Raffaella Marchese**: *Modelli Semi Markov con Reward per il recupero crediti alcune considerazioni*

12:10-12:30 Salvatore Forte, Matteo Ialenti, **Marco Pirra**: *Bayesian Fisher Lange reserve risk modelling, sensitivities and back testing analysis*

12:30-12:50 Elisa Luciano, **Luca Regis**, Elena Vigna: *Delta-Gamma hedging of mortality and interest rate risk*

12:50-13:10 **Gabriele Stabile**: *Pension Fund and Investment manager's compensation in a continuous time model*

13:10-13:30 **Flavio Pressacco**, Laura Ziani: *Early ideas of reward-risk analysis in reinsurance: some remarks*

**13:30-14:30 Pranzo**

### **Sessioni parallele**

#### ***14:30-16:30 Finanza Matematica I - Sala Galilei***

Chairman: Maria Elvira Mancino

14:30-14:50 **Flavia Barsotti**: *Optimal Capital Structure with Endogenous Default and Volatility Risk*

14:50-15:10 **Stefano Benati**: *Using medians in portfolio optimization*

15:10-15:30 Luciana Dalla Valle, **Maria Elena De Giuli**, Claudio Manelli, Claudia Tarantola: *A hybrid approach to assess default probability using Bayesian pair copula construction*

15:30-15:50 Luciano Campi, **Matteo Del Vigna**: *Weak Insider Trading and Behavioral Finance*

15:50-16:10 **Annalisa Fabretti**, Stefano Herzel: *Socially responsible decentralized investment*

#### ***14:30-16:30 Matematica Attuariale e Finanza - Sala Pacinotti***

Chairman: Luciano Sigalotti

14:30-14:50 Massimo Costabile, Ivar Massabò, **Emilio Russo**: *A forward shooting grid method for option pricing with stochastic volatility*

14:50-15:10 **Patrizia Stucchi**: *CVaR quasi-closed formulas*

15:10-15:30 **Giorgio Consigli**, Gaetano Iaquina, Vittorio Moriggia: *Optimal individual retirement planning with life insurance contracts*

15:30-15:50 **Ballestra Luca Vincenzo**, Graziella Pacelli: *New radial basis function techniques for pricing options with two stochastic factors*

15:50-16:10 **Angela Loregian**, Lorenzo Mercuri, Edit Rroji: *Approximation of the variance gamma model with a finite mixture of normals*