



41st Annual Meeting

**The Association for Mathematics Applied
to Social and Economic Sciences (AMASES)**

Cagliari, September 14-16, 2017



Dept. of Economics and Business

University of Cagliari

Viale S. Ignazio, 74

TH1-9:00-18:00

Thursday September 14, 2017 - Rettorato (via Università, 40)		
9.00-10.00	Registration (ground floor)	
10.00-10.30	Opening session: Aula Magna (1st floor) Welcome Addresses and Greetings	
10.30-11.00	Coffee break	
11.00-12.00	Plenary lecture: Didier Aussel (Chair: Elisabetta Allevi) Aula Magna (1st floor)	
12.00-13.00	Plenary lecture: Mogens Steffensen (Chair: Anna Rita Bacinello) Aula Magna (1st floor)	
13.00-14.30	Lunch	
14.30-15.30	Plenary lecture: Chris Rogers (Chair: Gianluca Fusai) Aula Magna (1st floor)	
15.45-18.00	AMASES Award (Chair: Riccardo Cambini) Aula Magna (1st floor)	
112	A differential game in a duopoly with instantaneous incentives	Michele Bisceglia , Luca Grilli
91	Global public spending efficiency in Tuscan municipalities	Giovanna D'Inverno , Laura Carosi, Letizia Ravagli
79	Mean-reverting no-arbitrage additive models for forward curves in energy markets	Luca Latini, Marco Piccirilli , Tiziano Vargiolu
123	An expectile-based measure of implied volatility	Fabio Bellini, Lorenzo Mercuri, Edit Rroji

Friday September 15, 2017 (via Sant'Ignazio, 74)

8.00-8.30 Registration: Faculty of Scienze Economiche, Giuridiche e Politiche (ground floor)

(chair: **Angelo Troiani**) Room (A0-F) (ground floor)

FR1-8:30-10:00

DF - Dynamic models in economics and finance (Davide Radi)

65	Inflation targeting, recursive inattentiveness and heterogeneous beliefs	Anna Agliari, Domenico Massaro, Nicolò Pecora , Alessandro Spelta
67	Gradient dynamics in a duopoly model with complementary goods	Anna Agliari, Fernando Bignami
83	Globalization and coupled chaotic fluctuations of innovation	Iryna Sushko , Laura Gardini, Kiminori Matsuyama
90	Two-factor Vasicek model: calibration and validation using Kalman filter	Angelo Troiani

(chair: Friederike Wall) Room (A0-E) (ground floor)			
FR2-8:30-10:00 AB - Agent-based models and computational economics (Stephan Leitner, Paolo Pellizzari, Friederike Wall)	34	Public procurement manipulation in industrial districts	Ugo Merlone , Pietro Terna
	41	Fast traders and slow price adjustments: an artificial market with strategic interaction and transaction costs	Danilo Liuzzi, Paolo Pellizzari, Marco Tolotti
	44	Multi-objective optimization and Markov chain analysis in calibrating ABM	Annalisa Fabretti
	52	An agent-based variant of the standard hidden-action model	Stephan Leitner , Friederike Wall

(chair: Edit Rroji) Room (A1-D) (first floor)			
FR3-8:30-10:00 CF - Computational finance (Lorenzo Mercuri, Edit Rroji)	32	Quantitative assessment of common practice procedures in the fair evaluation of embedded options in insurance contracts (part I and II)	Anna Maria Gambaro , Riccardo Casalini, Gianluca Fusai, Alessandro Ghilarducci
	59	yuimaGUI: a graphical user interface for the yuima package	Emanuele Guidotti , Stefano M. Iacus, Lorenzo Mercuri
	64	Quantization meets Fourier: a new technology for pricing options	Giorgia Callegaro, Lucio Fiorin , Martino Grasselli
	76	Point process regression model in the yuima project	Lorenzo Mercuri

(chair: Giulianella Coletti) Room (A1-I) (first floor)			
FR4-8:30-10:00 DM - Decision models under vague and imprecise information (Giulianella Coletti, Davide Petturiti, Barbara Vantaggi)	172	Stochastic weighted variational inequalities in non-pivot Hilbert spaces and applications to transportation networks	Annamaria Barbagallo , Giovanni Scilla
	97	Hybrid fuzzy probabilistic consumers classification	Marco Baiocchi, Andrea Capotorti , Davide Petturiti
	103	A two-countries gravity model of migration under uncertainty	Francesco Rania , Antonio Di Ruggiero
	137	Models for decisions under vague information and risk	Giulianella Coletti , Davide Petturiti, Barbara Vantaggi

		(chair: Gian Italo Bischi) Room (B0-A) (ground floor)		
FR5-8:30-10:00	31	Replicator dynamics in economic behaviour: competitor vs. optimizer		Jozsef Garay, Zoltan Varga
	35	Outgroup effects on binary choices dynamics		Arianna Dal Forno, Ugo Merlone
DB - Dynamic models of bounded rationality (Fabio Tramontana)	39	Knowledge spillovers, congestion effects, and long run location patterns		Gian Italo Bischi, Michael Kopel, Fabio Lamantia, Davide Radi
	43	When a boundedly rational monopolist meets loss averse consumers: a dynamic model of monopoly pricing		Fabio Tramontana

		(chair: Paolo Falbo) Room (A1-B) (first floor)		
FR6-8:30-10:00	8	Evaluating the external supply risk in a natural gas supply chain: a variational inequality approach		Giorgia Oggioni, Elisabetta Allevi, Luigi Boffino, M.E. De Giuli
	11	On a equilibrium problem with complementarity constraints formulation of pay-as-clear electricity market with demand elasticity		Elisabetta Allevi, Didier Aussed, Rossana Riccardi
GE - Green economy, energy and sustainability (Elisabetta Allevi, Giorgia Oggioni, Rossana Riccardi)	16	Optimal energy supply shift with battery storages		Paolo Falbo, Juri Hinz, Cristian Pelizzari
	17	Spot market, futures and risk management in the generation of electricity		Paolo Falbo, Carlos Ruiz Mora

	8.30-10.00	(chair: Roy Cerqueti) Room (A1-H) (first floor)		
FR7-8:30-10:00	104	Using GAN to enhance credit card fraud detection		Ugo Fiore, Francesca Perla, Paolo Zanetti
	109	Risk management for (socially) connected systems		Roy Cerqueti
Financial Modeling	116	Hedging of a Defaultable claim driven by Hawkes processes		Selvamuthu Dharmaraja, Puneet Pasricha, Paola Tardelli
	45	Optimal trial duration with non-linear reward functions		Rachele Foschi

		(chair: Alessandra Buratto) Room (A0-I) (ground floor)		
FR8-8:30-10:00	7	A motion evasion differential game of many pursuers and evaders with integral constraints		Massimiliano Ferrara, Bruno Antonio Pansera
	18	Vaccination campaign: a differential game approach		Alessandra Buratto, Luca Grosset, Bruno Viscolani
DG - Dynamic games (Gianfranco Gambarelli)	29	Quick or persistent? On the feedback effects between first and second-mover advantages in a stochastic investment game		Jan-Henrik Steg, Jacco Thijssen
	36	Dynamic coordination in supply chain management		Pietro De Giovanni

10.00-10.30 **Coffee Break**

		(chair: Roberto Dieci) Room (A0-F) (ground floor)		
FR9-10:30-12:00	DB - Dynamic models of bounded rationality (Fabio Tramontana)	75	Incentivised extrinsic motivation and self-control preferences	Linda Hirt-Schierbaum, Maryna Ivets Fausto Cavalli, Ahmad Naimzada Christoph March, Anthony Ziegelmeier Roberto Dieci , Noemi Schmitt, Frank Westerhoff
		81	Dynamics of periodically perturbed economic contexts	
		99	Adaptive social learning	
		102	Interactions between stock markets and housing markets	
		(chair: Elisa Letizia) Room (A1-H) (first floor)		
FR10-10:30-12:00	NE - Networks and big data in economics, finance, and social systems (Elisa Letizia, Fabrizio Lillo, Michele Tumminello)	28	Bayesian Markov switching tensor regression	Monica Billo, Roberto Casarin, Matteo Iacopini Elisa Letizia , Fabrizio Lillo Fabio Farabullini , Riccardo Cesari, Michele Tumminello, Andrea Consiglio Mariana Piaia Abreu , Rosanna Grassi
		87	Payments networks and risk of firms	
		160	Fraud detection through a network analysis of the anti-fraud database	
		119	Structure of control in financial networks: an application to the Brazilian stock market	
		(chair: Lorenzo Mercuri) Room (A1-D) (first floor)		
FR11-10:30-12:00	CF - Computational finance (Lorenzo Mercuri, Edit Rroji)	89	Analysis of estimation risk for exotic options through a resampling technique	Gianluca Fusai, Marina Marena , Marco Materazzi Marco Nicolosi, Flavio Angelini, Stefano Herzel Rosella Giacometti , Gabriele Torri, Sandra Paterlini Marco Nicolosi
		98	Portfolio management with benchmark related incentives under mean reverting processes	
		121	Robust sparse precision matrices and financial applications	
		156	Optimal strategy for a fund manager with option compensation	

(chair: Fabrizio Durante) Room (A1-I) (first floor)			
FR12-10:30-12:00	133	Copula tools for assessing and modelling extreme risks	Roberta Pappadà , Fabrizio Durante, Nicola Torelli
DD - Developments in dependence modelling and risk aggregation (Fabrizio Durante, Roberta Pappadà)	19	The effectiveness of TARP-CPP on the US banking industry: a new copula-based approach	Raffaella Calabrese , Marta Degli'Innocenti, Silvia Angela Osmetti
	54	Multivariate subordination to model asset returns: a unified framework	Marina Marena, Patrizia Semeraro
	108	Reserve sensitivity testing	Silvana Pesenti, Pietro Millosovich , Andrea Tsanakas

(chair: Davide Petturiti) Room (A0-I) (ground floor)			
FR13-10:30-12:00	139	Weak Dutch books and imprecise previsions	Chiara Corsato , Renato Pelessoni, Paolo Vicig
DM - Decision models under vague and imprecise information (Giulianella Coletti, Davide Petturiti, Barbara Vantaggi)	146	Preferences on conditional gambles with unexpected scenarios	Giulianella Coletti, Davide Petturiti , Barbara Vantaggi
	105	A single-valued gap function for non-differentiable non-convex multi-objective programming problems	Giuseppe Caristi, Nader Kanzi , Alfio Puglisi
	50	Boundary value problems with impulsive effects	Giuseppe Caristi, Shapour Heidarkhani , David Barilla

(chair: Antonella Basso) Room (A1-C) (first floor)			
FR14-10:30-12:00	33	Transformation service level on a municipal service center's costs: a numerical study based on supply chain management models	Matan Shnaiderman
Foundations of probability, decisions, finance, applications	176	A machine learning approach to the detection of anomalies in insurance claims	Massimo Buscema , Giulia Massini
	145	A two-stage DEA-BSC model for museum evaluation with proportional virtual weight restrictions	Antonella Basso , Stefania Funari
	115	Structured-like a tournament industry: a game between infinite managers	Enrico Lupi

		(chair: Davide Radi) Room (B0-A) (ground floor)	
FR15-10:30-12:00	23	The Rearrangement algorithm of Puccetti and Rüschemdorf: proving the convergence	Marcello Galeotti , Giovanni Rabitti, Emanuele Vannucci
	26	Growth and agglomeration in the heterogeneous space: a generalized AK approach	Raouf Boucekkin, Giorgio Fabbri, Salvatore Federico , Fausto Gozzi
DF - Dynamic models in economics and finance (Davide Radi)	38	Time delays in economic models	Luca Guerrini
	42	The effect of uncertainty and production-inventory policies with environmental considerations	Konstantin Kogan, Beatrice Venturi , Matan Shnaiderman

		(chair: Maria Cristina Recchioni) Room (A0-E) (ground floor)	
FR16-10:30-12:00	68	Systematic flatness	Federico Bandi, Davide Pirino , Roberto Renò
TF - The theory and practice of financial volatility (Maria Elvira Mancino)	85	The computation of implied volatility surfaces	Lorella Fatone
	88	Smile at errors: A discrete-time stochastic volatility framework for pricing options with realized measures	Giacomo Bormetti , Roberto Casarin, Fulvio Corsi, Giulia Livieri

12.00-13.00 Plenary lecture: Laura Gardini (chair: **Beatrice Venturi**) Room (B0-A) (ground floor)

13.00-14.00 **Lunch**

14.00-15.30 **Parallel sessions**

		(chair: Christos Skiadas) Room (A1-C) (first floor)	
FR17-14:00-15:30	171	The first exit time stochastic theory and related applications	Christos Skiadas , Charilaos Skiadas
Stochastic models and applications	9	On the optimal management of public debt: a singular stochastic control problem	Giorgio Ferrari
	100	A consistent stochastic model of the term structure of interest rates for multiple tenors	Mesias Alfeus, Martino Grasselli , Erik Schlogl
	163	K-dimensional matrices in numerical solution of diffusion problems	Raimondo Manca , Oronzio Manca

		(chair: Stephan Leitner) Room (A1-D) (first floor)	
FR18-14:00-15:30	70	Sensitivity of coordination mechanisms to erroneous communication	Friederike Wall
	78	Optimal macroeconomic policies for nonlinear econometric models with rational expectations	Dmitri Blueschke, Viktoria Blueschke-Nikolaeva, Reinhard Neck
	86	An agent-based simulation for the cooperation behavior of companies, which operate as profit centers	Christian Mitsch
	164	Allocation of procurement volumes in a buyer-supplier model	Kristian Strmenik
AB - Agent-based models and computational economics (Stephan Leitner, Paolo Pellizzari, Friederike Wall)			

		(chair: Fabio Tramontana) Room (B0-A) (ground floor)	
FR19-14:00-15:30	142	In and out of the market: ETS and technological innovation in a dynamic evolutionary model	Angelo Antoci, Simone Borghesi, Gianluca Iannucci , Paolo Russu
	153	A dynamical model of oligopolies with imitators: analysis and comparisons with experimental outcomes	Lorenzo Cerboni Baiardi , Ahmad Naimzada
	167	Dynamical analysis of a financial model in discrete time with heterogeneous agents	Serena Brianzoni, Giovanni Campisi , Alberto Russo
	94	Generating the efficient frontier of a class of bicriteria generalized fractional programs	Riccardo Cambini , Laura Carosi
DB - Dynamic models of bounded rationality (Fabio Tramontana)			

		(chair: Fabio Privileggi) Room (A0-I) (ground floor)	
FR20-14:00-15:30	92	Social capital, government size and long run growth: who should fear big governments?	Gaetano Carmeci, Luciano Mauro, Fabio Privileggi
	173	Multivariate dominance among financial sectors	Sergio Ortobelli Lozza , Nouredine Kouaissah
	95	Heterogeneous players in a Cournot model with differentiated products	Andrea Caravaggio , Mauro Sodini
	113	Complex basins and multistability in a discontinuous growth model	Francesca Grasseti , Cristiana Mammana, Elisabetta Michetti
DF - Dynamic models in economics and finance (Davide Radi)			

(chair: Giorgia Oggioni) Room (A0-E) (ground floor)			
FR21-14:00-15:30	72	Estimating efficiency of Italian water utilities by accounting for quality and environmental issues	Laura Carosi , Giovanna D'Inverno, Andrea Guerrini, Giulia Romano
	84	Capacity markets and the pricing of reliability options	Luisa Andreis, Fulvio Fontini, Tiziano Vargiolu
	127	Numerically tractable models for electricity markets	Simone Sagratella , Lorenzo Lampariello
GE - Green economy, energy and sustainability (Elisabetta Allevi, Giorgia Oggioni, Rossana Riccardi)			

(chair: Davide Pirino) Room (A1-I) (first floor)			
FR22-14:00-15:30	114	Higher moment risk premiums and the cross-section of stock returns in the European stock market	Elyas Elyasiani, Luca Gambarelli , Silvia Muzzioli
	132	Adaptive lasso for high dimensional vector multiplicative error models	Luca Cattivelli , Giampiero Gallo
	144	Estimation of the stochastic leverage under microstructure effects	Simona Sanfelici , Imma Valentina Curato
	149	The risk-asymmetry index as a new measure of risk	Elyas Elyasiani, Luca Gambarelli, Silvia Muzzioli
TF - The theory and practice of financial volatility (Maria Elvira Mancino)			

(chair: Andrea Roncoroni) Room (A1-H) (first floor)			
FR23-14:00-15:30	63	Markov regenerative process with catastrophe and its application to credit rating dynamics	Puneet Pasricha , S. Dharmaraja
	120	EM algorithm for Markov chains observed via Gaussian noise and point process information: theory and case studies	Camilla Damian , Zehra Eksi, Rüdiger Frey
	151	Gaussian Noise and Point Process Information:	Anubha Goel , Aparna Mehra
	162	Optimal financial hedging of nontradable risk	Paolo Guiotto, Andrea Roncoroni
Markov and semi-Markov processes and their applications			

		(chair: Massimo Costabile) Room (A0-F) (ground floor)	
FR24-14:00-15:30	73	Indifference pricing of unit-linked life insurance contracts under partial information	Claudia Ceci, Katia Colaneri, Alessandra Cretarola
Insurance	46	Computing risk measures of life insurance policies through lattice-based models	Massimo Costabile
	155	Funded and PAYG mixed pension systems' sustainability: an analysis of the long term equilibrium	Roberta Melis , Alessandro Trudda
	4	High order finite element method in insurance mathematics	Davood Ahmadian

15.30-17.00 Parallel sessions

		(chair: Alessandro Sbuelz) Room (A1-I) (first floor)	
FR25-15:30-17:00	20	Portfolio optimization for a large investor: intensity-based control under partial information	Sühan Altay, Katia Colaneri , Zehra Eksi
Portfolio decision and optimization	131	Pricing guaranteed lifelong withdrawal benefit: a time series approach for modeling fund dynamics	Nitu Sharma , Selvamuthu Dharmaeaja, Viswanathan Arunachalam
	134	Structural recovery of face value at default	Rajiv Guha, Alessandro Sbuelz , Andrea Tarelli
	166	Longevity-linked assets and pre-retirement consumption/portfolio decisions	Francesco Menoncin, Luca Regis

		(chair: Alessandra Buratto) Room (A0-I) (ground floor)	
FR26-15:30-17:00	25	A DEA bargaining approach	Sabastian Lozano, Miguel A. Hinojosa, Amparo M. Marmol
NG-DG - Non-Cooperative and Dynamic Games (Gianfranco Gambarelli)	14	Hurwicz criterion and the equilibria of duopoly models	M. Angeles Caraballo , Asuncion Zapata, Luisa Monroy, Amparo M. Marmol
	170	Divide and Invest: bargaining in a dynamic framework	Francesca Flamini
	21	Regional regulators in healthcare service under quality competition: a game theoretical model	Michele Bisceglia, Roberto Cellini, Luca Grilli

(chair: Elisa Mastrogiacomo) Room (A1-B) (first floor)			
FR27-15:30-17:00	80	Modeling default probability: a hybrid approach	Francesca Mariani
	111	You are all surrounded!!: Churn analysis of elite users using game log data	Hye-ji Do , In-seok Kim
	158	Profit testing in solvency II regime	Federica Mauceri , Marco Caputi
	122	Optimal reinsurance under regime switching in a Brownian risk model	Julia Eisenberg, Lukas Fabrykowski, Maren Diane Schreck
RM - Risk measures, pricing and game theory (Emanuela Rosazza Gianin, Elisa Mastrogiacomo)			

(chair: Giorgio Consigli) Room (A1-D) (first floor)			
FR28-15:30-17:00	69	Pension fund asset-liability management with stochastic dominance constraints, hedging derivatives and contamination	Sebastiano Vitali , Miloš Kopa, Vittorio Moriggia
	37	Optimal management of immunized portfolios	Riccardo Cesari , Vieri Mosco
	74	Long-term asset allocation under time-varying investment opportunities: optimal portfolios with parameter and model uncertainty	Thomas Dangl, Alex Weissensteiner
	77	A stochastic programming model for portfolio management under general transaction costs	Antonio Violi , Patrizia Beraldi, Gianluca Carrozzino, Claudio Ciancio
FD - Financial decision making under uncertainty (Giorgio Consigli)			

(chair: Matteo Brunelli) Room (A1-H) (first floor)			
FR29-15:30-17:00	138	Fuzzy weighted attribute combinations based similarity measures	Giulianella Coletti, Davide Petturiti, Barbara Vantaggi
	143	Sustainable multipurpose strategies for farms conciliating economic and environmental objectives	Antonio Boggia, Luisa Paolotti, Filippo Fiume Fagioli
	148	Axiomatic properties of G-consistency indices	Bice Cavallo, Livia D'Apuzzo
	159	A new methodology for evaluating units through composite indices: the σ - μ efficiency	Salvatore Greco , Alessio Ishizaka, Menelaos Tasiou, Gianpiero Torrisi
MC - Multiple criteria decision making (Matteo Brunelli, Bice Cavallo, Salvatore Corrente)			

		(chair: Maria Elvira Mancino) Room (A0-F) (ground floor)	
FR30-15:30-17:00	15	A behavioral stochastic volatility model	Maria Cristina Recchioni , Simone Alfarano
	24	Estimation of the stochastic leverage effect using the Fourier transform method	Imma Valentina Curato
	40	A score-driven conditional correlation model for noisy and asynchronous data: an application to high-frequency covariance dynamics	Giuseppe Buccheri, Giacomo Bormetti , Fulvio Corsi, Fabrizio Lillo
	55	A persistence-based Wold-type decomposition for stationary time series	Fulvio Ortu, Federico Severino , Andrea Tamoni, Claudio Tebaldi
TF - The theory and practice of financial volatility (Maria Elvira Mancino)			

		(chair: Mauro Sodini) Room (B0-A) (ground floor)	
FR31-15:30-17:00	130	The effect of bank bailouts in the EU	Emilio Barucci, Tommaso Colozza , Carlo Milani
	140	Sunspot in a resource optimal control model with externalities	Beatrice Venturi, Alessandro Pirisinu
	157	Defensive medicine, liability insurance and malpractice litigation in an evolutionary model	Angelo Antoci, Alessandro Fiori Maccioni , Marcello Galeotti, Paolo Russu
	96	CVA evaluation of defaultable claims in a multi-factor intensity model by correlation expansion	Fabio Antonelli, Alessandro Ramponi , Sergio Scarlatti
DF - Dynamic models in economics and finance (Davide Radi)			

		(chair: Rossana Riccardi) Room (A0-E) (ground floor)	
FR32-15:30-17:00	128	Sustainability evaluation of rural buildings through life-cycle approach and multi-criteria analysis	Lucia Rocchi, Luisa Paolotti , Milosz Kadzinski, David Grohmann, Antonio Boggia, Maria Elena Menconi
	129	A bridge between bilevel programs and Nash games	Lorenzo Lampariello , Simone Sgaratella
	135	Price dynamics in the EU-ETS and evaluation of its ability to boost emission-related investment decisions	Maria Flora , Tiziano Vargiolu
	165	Optimal provision of a dispatchable energy source for wind energy management: dependence on the wind energy model	Guglielmo D'Amico, Filippo Petroni , Robert Adam Sobolewski
GE - Green economy, energy and sustainability (Elisabetta Allevi, Giorgia Oggioni, Rosanna Riccardi)			

17.00-17.30 **Coffee Break**

17.30-18.15

Plenary lecture Matteo Salto (chair: Stefano Zedda) Room (B0-A) (ground floor)

18:15-19:45 AMASES annual general meeting

21:00 Social Dinner

Saturday September 16, 2017 (via Sant'Ignazio, 74)

9.00-10.30

Parallel sessions

(chair: Roberta Pappadà) Room (B0-A) (ground floor)

SAT1-9:00-10:30

DD - Developments in dependence modelling and risk aggregation (Fabrizio Durante, Roberta Pappadà)

10

Loss distribution and dependence structure: composite and copula models

Francesco Acri, Rocco Roberto Cerchiara

175

Protected adaptive asset allocation: momentum and cash protection as an alternative

Mirko Bellu, Claudio Conversano

107

Numerical solution of the regularized Markowitz model

Stefania Corsaro, Zeldia Marino, Francesca Perla, Valentina De Simone

(chair: Giovanna Apicella) Room (A1-B) (first floor)

SAT2-9:00-10:30

Insurance

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Using interest rate models to improve mortality forecast

Giovanna Apicella, Michel M. Dacorogna, Emilia Di Lorenzo, Marilena Sibillo

150

Decomposition of changes in Italian life expectancy

Cinzia Di Palo

141

Modelling mortality in subpopulation with dependence on economic trends

Giuseppina Bozzo

147

Pricing distortions between different line of business due to the introduction of direct reimbursement system in the motor third party liability insurance

Paola Fersini, Salvatore Forte, Giuseppe Melisi, Gennaro Olivieri

		(chair: Laura Ziani) Room (A1-I) (ground floor)		
SAT3-9:00-10:30	13	An explicit bound on the core convergence for large partitioning games		Alexander Kovalenkov , Myrna Holtz Wooders
	1	The tax dodger's dilemma		Gianfranco Gambarelli , Nicola Gatti, Daniele Gervasio
CG - Cooperative games (Gianfranco Gambarelli)	53	Parsimonious-strong Fibonacci games		Flavio Pressacco, Laura Ziani

		(chair: Davide Radi) Room (A0-I) (ground floor)		
SAT4-9:00-10:30	51	Optimal trading problem under stochastic dominance constraints and autoregressive price dynamics		S. Dharmaraja
	56	Financial instruments for mitigation of flood risks: the case of Florence		Fabio Castelli, Marcello Galeotti, Giovanni Rabitti
DF - Dynamic models in economics and finance (Davide Radi)	61	Robust games: theory and application to a Cournot duopoly model		Giovanni Paolo Crespi, Davide Radi , Matteo Rocca
	62	Efficiency-wage competition and nonlinear dynamics		Marco Guerrazzi, Mauro Sodini

		(chair: Giorgio Consigli) Room (A0-F) (ground floor)		
SAT5-9:00-10:30	71	Volatility vs. downside risk: performance protection in dynamic portfolio strategies		Giorgio Consigli , Diana Barro, Elio Canestrelli
	48	Diversified optimal portfolios: a new approach to portfolio selection		Francesco Cesarone , Andrea Scozzari, Fabio Tardella
FD - Financial decision making under uncertainty (Giorgio Consigli)	57	Equilibria under knightian price uncertainty		Patrick Beißner , Frank Riedel
	60	ALM using distributionally robust stochastic optimization approach		Giorgio Consigli, Rui Gao, Asmerilda Hitaj , Anton J. Kleywegt

SAT6-9:00-10:30

(chair: Bice Cavallo) Room (A1-D) (first floor)

MC - Multiple criteria decision making (Matteo Brunelli, Bice Cavallo, Salvatore Corrente)

30	Breaking ties in collective decision making	Daniela Bubboloni, Michele Gori Bice Cavallo
49	Improving G-consistency of a pairwise comparison matrix	
82	Robust ordinal regression and stochastic multicriteria acceptability analysis for the level dependent Choquet integral	Sally Giuseppe Arcidiacono , Salvatore Corrente, Salvatore Greco
106	Inconsistency thresholds and benchmark matrices in pairwise comparisons	Michele Fedrizzi , Alexandra Caprila

10.30-11.00 Coffee break

11.00-12.30 Parallel sessions

(chair: Emanuela Rosazza Gianin) Room (A1-D) (first floor)

SAT7-11:00-12:30

RM - Risk measures, pricing and game theory (Emanuela Rosazza Gianin, Elisa Mastrogiacomo)

2	Time-consistency of risk measures: how strong is such a property?	Elisa Mastrogiacomo, Emanuela Rosazza Gianin Emilio Barucci, Daniele Marazzina, Elisa Mastrogiacomo
3	Optimal investment strategies with stochastic interest rate and minimum performance constraint	
12	Capital allocation à la Aumann and Shapley for non differentiable risk measures	Francesca Centrone , Emanuela Rosazza Gianin
27	The digits hidden in the virtual world: approximate estimation applying capture and recapture method	Da-Mi Hwang , In-Seok Kin

(chair: Giovanni Bella) Room (A1-B) (first floor)

SAT8-11:00-12:30

SIE - Società Italiana degli Economisti

	Endogenous fertility, retirement and social security	Tamara Fioroni , G.P. Cipriani
	Cultural selection and growth of adaptive versus maladaptive traits	Pier Luigi Sacco
	Convex dynamic programming with (bounded) recursive utility	Gaetano Bloise , Y. Vailakis
	Regime switch and the grazing-sliding bifurcation in the Romer model of endogenous growth	Giovanni Bella , Paolo Mattana, Beatrice Venturi

(chair: Giacomo Bormetti) Room (A1-I) (first floor)			
SAT9-11:00-12:30	152	HAR modelling with nonlinear effects and measurement errors	Giuseppe Buccheri, Fulvio Corsi
TF - The theory and practice of financial volatility (Maria Elvira Mancino)	6	Hybrid tree-finite difference methods for the Heston Hull-White models	Maya Briani, Lucia Caramellino, Antonino Zanette
	161	Modeling trading duration, volume and returns by means of vector indexed semi-Markov chains	Guglielmo D'Amico , Filippo Petroni

(chair: Laura Ziani) Room (A0-E) (ground floor)			
SAT10-11:00-12:30	101	Social norms and social pressure in the provision of club goods	Friederike Blönnigen
NG - Non-cooperative games (Gianfranco Gambarelli)	5	How to build trust by investing in cooperation	Gabriele Camera, Alessandro Gioffré
	47	Uniqueness of Nash equilibrium in continuous two-player weighted potential games	Francesco Caruso, Maria Carmela Ceparano , Jacqueline Morgan

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SAT11-11:00-12:30	124	Analysis of banks' systemic risk contribution and contagion determinants through the leave-one-out approach	Stefano Zedda , Giuseppina Cannas
NE - Networks and big data in economics, finance, and social systems (Elisa Letizia, Fabrizio Lillo, Michele Tumminello)	154	Disentangling fitness dynamics and preferential linkage in temporal networks with an application to interbank market	Piero Mazzarisi , Paolo Barucca, Fabrizio Lillo, Daniele Tantari
	118	A network analysis of criminal databases	Michele Tumminello

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**Decision Theory and its
Mathematics (Simone Cerreia
Vioglio)**

(chair: Simone Cerreia Vioglio) Room (A0-F) (first floor)

Robust mean-variance approximation

A new subjective spin on roulette wheels

Cases and scenarios in decisions under uncertainty

Behavioral foundation of cue-triggered choice

S. Cerreia-Vioglio, F. Maccheroni, M. Marinacci

P. Ghirardato, D. Pennesi

I. Gilboa, **S. Minardi**, L. Samuelson

D. Pennesi