QFW 2020

XXI WORKSHOP ON QUANTITATIVE FINANCE
NAPOLI 29-31 JANUARY 2020

Organized by the **Department of Management and Quantitative Studies** of Parthenope University of Napoli.

Program

Università di Napoli Parthenope – via Generale Parisi 13, 80132 Napoli

QFW2020 - XXI WORKSHOP ON QUANTITATIVE FINANCE
Napoli, January 29-31, 2020
Program Summary

WEDNESDAY 29	THURSDAY 30	FRIDAY 31
8.30 - 9.30	**8.30 - 11.00**	**9.00 - 11.00**
WELCOME COFFEE AND REGISTRATION	REGISTRATION	CSEF SESSION 2
		TALK
	8.45.00 - 10.00	
9.30 - 10.00	SHORT TALK	**11.00 - 11.30**
OPENING SESSION	SHORT TALK	COFFEE BREAK
10.00 - 11.00	**10.00 - 10.30**	**11.30 - 12.30**
SHORT TALK	COFFEE BREAK	SHORT TALK
SHORT TALK		SHORT TALK
	10.30 - 13.00	
11.00 - 13.00	TALK	**12.30 - 13.30**
TALK	TALK	SHORT TALK
TALK		SHORT TALK
	13.00 - 14.00	
13.00 - 14.00	LIGHT LUNCH	**13.30 - 14.30**
LIGHT LUNCH		LIGHT LUNCH
	14.00 - 15.00	
14.00 - 16.00	ARPM PRESENTATION	
TALK		
TALK	**15.00 - 17.00**	
	TALK	
16.00 - 16.30	TALK	
COFFEE BREAK		
	17.00 - 17.30	
16.30 - 18.30	COFFEE BREAK	
CSEF SESSION 1		
TALK	**17.30 - 18.30**	
	SHORT TALK	
	SHORT TALK	
	20,00	
	SOCIAL DINNER	

LEGEND

- COFFE BREAK
- LIGHT LUNCH
- SHORT TALK
- TALK WITH DISCUSSANT
- VARIOUS
- SOCIAL DINNER
- CSEF SESSION

VENUE

Università Parthenope

via Generale Parisi 13, Palazzo Pacanowsky

The conference will be held at 1st floor in rooms 1.1 and 1.2

The registration desk will be located at floor A

WEDNESDAY 29				

floor A	**8.30 -9.30**	**Welcome coffee and registration**
1,2	**9.30 - 10.00**	**Opening Session**

1,1	**10.00 - 11.00**	**Financial Econometrics** - *chair: G. Storti*		
	10.00 - 10.15	71	**F. Cordoni**, F. Corsi	Identification of Overdetermined and Noisy Structural VAR Models: The Collapsing-ICA Approach
	10.15 - 10.30	85	**P. Giosi**, C. Starica	On the relationship between earnings quality and excess returns
	10.30 - 10.45	100	**G. Storti**, R. Gerlach, A. Naimoli	Time-Varying Heteroskedastic Realized GARCH models for tracking measurement error bias in volatility forecasting
	10.45 - 11.00	113	S. Corsaro, G. De Luca, **G. Rivieccio**	Value-at-Risk dynamics: a copula-VAR approach

1,2	**10.00 - 11.00**	**Mathematical Finance** - *chair: C. Mancini*		
	10.00 - 10.15	22	R. Foschi, F. Lilla, **C. Mancini**	Warnings about future jumps: properties of the exponential Hawkes model
	10.15 - 10.30	24	**D. Parfenov**	Pricing efficiency of cryptocurrencies and traditional assets through AMH framework across different time scales
	10.30 - 10.45	37	**B. Øksendal**, N. Agram	A financial market with a local time drift term and delay
	10.45 - 11.00			

1,1	**11.00 - 13.00**	**Machine Learning** - *chair: P. Rossi*		
	11.00 - 11.30	33	**P. Rossi**, F. Cocco, G. Bormetti	Machine Learning, Pricing And Risk Measures *discussant:* **A. Rubesam**
	11.30 - 12.00	89	**D. Giachini**, G. Bottazzi	Market Learning *discussant:* **P. Rossi**
	12.00 - 12.30	88	**C. Cuchiero**, M. Larsson, J. Teichmann	Deep neural networks, generic universal interpolation, and controlled ODEs discussant: **T. Sohm-Quéron**
	12.30 - 13.00	105	C. Sala, **T. Sohm-Quéron**, T. Cazenave	Neural Networks for Volatility Surfaces under Convexity Constraints *discussant:* **U. Fiore**

1,2	**11.00 - 13.00**	**Derivative Pricing** - *chair: A. Pallavicini*		
	11.00 - 11.30	32	R. Daluiso, E. Nastasi, **A. Pallavicini**, G. Sartorelli	Pricing Commodity Swing Options *discussant:* **I. Kryakou**
	11.30 - 12.00	54	**I. Kyriakou**, R. Brignone, G. Fusai	Conditional Monte Carlo methods for stochastic volatility models *discussant:* **S. Herzel**
	12.00 - 12.30	59	P. Carr, **L. Torricelli**	Logistic processes and the simplest option pricing formula *discussant:* **J. Ery**
	12.30 - 13.00	83	**J. Ery**, L. Michel	Surrender Option Pricing with Deep Q-learning *discussant:* **A. Pallavicini**

floor A	**13.00 - 14.00**	**Light Lunch**

1,1	**14.00 - 16.00**	**Bond Market** - *chair: R. Renò*		
	14.00 - 14.30	23	E. Barucci, D. Brigo, M. Francischello, **D. Marazzina**	On the design of Sovereign Bond-Backed Securities *discussant:* **C. Fontana**
	14.30 - 15.00	29	**C. Fontana**, A. Gnoatto, G. Szulda	Multiple yield curve modelling with CBI processes *discussant:* **D. Marazzina**
	15.00 - 15.30	90	**G. Mboussa Anga**	Euler discretization of exploding processes *discussant:* **G. Ferrari**
	15.30 - 16.00	66	**M. Flora**, R. Renò	Fragility of financial markets: the case of Italian public debt *discussant:* **G. Bormetti**

1,2	**14.00 - 16.00**	**Financial Economics** - *chair: M. Frittelli*		
	14.00 - 14.30	42	**A. Doldi**, M. Frittelli	Multivariate Systemic Optimal Risk Transfer Equilibrium *discussant:*
	14.30 - 15.00	106	**A. Modena**	Recapitalization, Bailout, and Long-run Welfare in a Dynamic Model of Banking *discussant:* **E. Marzano**
	15.00 - 15.30	67	**S. Colucci**	On Estimating Bitcoin Value at Risk: a comparative analysis *discussant:* **G. De Luca**
	15.30 - 16.00			

floor A	**16.00 - 16.30**	**Coffee Break**

1,1	**16.30 - 18.30**	**CSEF - Theoretical Finance** *- chair: M. Pagano*		
	16.30 - 17.00		M. Pagano, **L. Picariello**	Ownership, Control and Careers
	17.00 - 17.30		**S. Piccolo**, L. Vasconcelos, T.Wang	On the Bright Side of Simultaneous Rating
	17.30 - 18.00		G. Karakoc, M. Pagnozzi, S. Piccolo, **G.W. Puopolo**	Information Acquisition and Financial Advice
	18.00 - 18.30		T. Oliviero, M. Pagano, **M.M. Sorge**	Politics, financial regulation and housing bubbles

1,2	**16.30 - 18.30**	**Financial Stability** *- chair: G. Bormetti*		
	16.30 - 17.00	38	D. Di Gangi, **G. Bormetti**, F. Lillo	Score Driven Exponential Random Graphs (SD-ERGM): A New Class of Time Varying Parameters Models for Dynamical Networks *discussant:* **R. Renò**
	17.00 - 17.30	79	**R. Marfè**, M. Hasler, M. Khapko	Rational Learning and Term Structures *discussant:* **G. Storti**
	17.30 - 18.00	72	G. Calice, **C. Sala**, D. Tantari	Contingent Convertible Bonds in Network *discussant:* **R. Corvino**
	18.00 - 18.30	34	**R. Corvino**	Dynamic Ownership, Private Benefits, and Stock Prices *discussant:* **G. Buccheri**

			THURSDAY 30	

	8.30 - 11.00		**Registration**	
	8.45 - 10.00		**SHORT TALK - Machine Learning** - *chair: J. Teichmann*	
1,1	8.45 - 9.00	4	**J. Ruf**, W. Wang	Neural Network Based Discrete Hedging
	9.00 - 9.15	10	**A. Rubesam**	Machine learning portfolios with equal risk contributions
	9.15 - 9.30	78	**A. Verma**	Quantamental Factor Investing and Asset Pricing using Alternative Data and Machine learning
	9.30 - 9.45	92	**W. Khosrawi**, C. Cuchiero, J. Teichmann	A neural network approach to the calibration problem
	9.45 - 10.00	104	**J. Teichmann**, L. Gonon, L. Grigoryeva, C. Cuchiero, J.P. Ortega	Learning dynamics through random dynamical systems
	8.45 - 10.00		**SHORT TALK - Volatility** - *chair: M.E. Mancino*	
1,2	8.45 - 9.00	52	**I. Oliva**, L. Torricelli	Optimal portfolio allocation with derivatives under volatility and co-jumps risk
	9.00 - 9.15	74	**G. Toscano**, S. Scotti, M.E. Mancino	Is the price of variance swaps affine in the spot volatility? Empirical evidence from the S&P 500
	9.15 - 9.30	87	**S. Martins**	Measuring and Hedging Geopolitical Risk
	9.30 - 9.45	101	**G. Campisi**, S. Muzzioli	Construction and properties of volatility indices for Austria, Finland and Spain
	9.45 - 10.00	109	**B. Pacchiarotti**	Pathwise asymptotics for Volterra type stochastic volatility models
floor A	**10.00 - 10.30**		**Coffee Break**	
	10.30 - 13.00		**Stochastic Calculus** - *chair: M. Grasselli*	
1,1	10.30 - 11.00	39	**S. Federico**, G. Ferrari, P. Schuhmann	A Stochastic control problem for the optimal management of inflation *discussant:* **M. Gambara**
	11.00 - 11.30	86	**M. Grasselli**, A. Sagna	Functional and recursive quantization for a class of non markovian processes *discussant:* **K. Colaneri**
	11.30 - 12.00	41	**N. Agram**	Dynamic risk measures for BSVIEs and semimartingale issues *discussant:* **J. Teichmann**
	12.00 - 12.30	102	**M. Gambara**, J. Teichmann	Consistent Recalibration Models and Deep Calibration *discussant:* **M. Grasselli**
	12.30 - 13.00	40	**K. Colaneri**, T. De Angelis	A class of recursive optimal stopping problems with applications to stock trading *discussant:* **B. Øksendal**

1,2	**10.30 - 13.00**	**Finance and Stochastics** - *chair: C. Ceci*		
	10.30 - 11.00	69	**C. Ceci**, K. Colaneri, R. Frey, V. Koeck	Value adjustments and dynamic hedging of reinsurance counterparty risk *discussant:* **M. Brachetta**
	11.00 - 11.30	80	**G. Bottazzi**, F. Cordoni, G. Livieri, S. Marmi	Stochastic Discounted Cash Flow Analysis and Corporate Valuation *discussant:* **G. Toscano**
	11.30 - 12.00	103	X. Cheng, **M. Di Giacinto**, T. Wang	Dynamic optimal execution with inventory cost *discussant:* **E. Busseti**
	12.00 - 12.30	111	C. Albanese, **S. Crépey**, R. Hoskinson, B. Saadeddine	XVA Analysis From the Balance Sheet *discussant:* **A. Picarelli**
	12.30 - 13.00	112	**E. Busseti**, S. Boyd	Volume weighted average price optimal execution *discussant:* **T. Vargiolu**

floor A	**13.00 - 14.00**	**Light Lunch**

1,2	**14.00 - 15.00**	**ARPM**
		A. Colombaro (ARPM researcher) - Frontiers in Quant Finance Education

1,1	**15.00 - 17.00**	**Model Uncertainty and Game Theory in Finance** - *chair: S. Federico*		
	15.00 - 15.30	12	**F. Girardi**	Ambiguity, Prudence and Optimal Portfolio *discussant:* **M. Maggis**
	15.30 - 16.00	58	Q. Wang, **Y.K. Kwok**	Real Option Signaling Games of Debt Financing Using Equity Guarantee Swaps under Asymmetric Information *discussant:* **F. Cordoni**
	16.00 - 16.30	75	**F. Cordoni**, F. Lillo	What destabilizes financial markets? Insights from market impact games *discussant:* **S. Federico**
	16.30 - 17.00	81	F.B. Liebrich, **M. Maggis**, G. Svindland	Function Spaces under Model Uncertainty: Order and Aggregation *discussant:* **C. Cuchiero**

1,2	**15.00 - 17.00**	**Portfolio** - *chair: S. Herzel*		
	15.00 - 15.30	11	**G. Buccheri**, S.J. Koopman	A High-Dimensional Realized Covariance Dynamic Factor Model: Analysis, Estimation and Forecasting *discussant:* **S.A. Korsaye**
	15.30 - 16.00	25	**S.A. Korsaye**, A. Quaini, F. Trojani	Smart Sthocastic Discount Factors *discussant:* **C. Ceci**
	16.00 - 16.30	48	**S. Herzel**, K. Colaneri, M. Nicolosi	The value of knowing the market price of risk *discussant:* **I. Oliva**
	16.30 - 17.00	98	**G. Curatola**, I. Dergunov	International capital markets with time-varying preferences *discussant:* **D. Giachini**

floor A	**17.00 - 17.30**	**Coffee Break**		

1,1	**17.30 - 18.30**	**SHORT TALK - Risk Measures** - *chiar: F. Centrone*		
	17.30 - 17.45	14	**M.L. Bianchi**	Assessing the market risk of banks securities holdings: a data-driven supervisory approach
	17.45 - 18.00	68	**G. Canna**, F. Centrone, E. Rosazza Gianin	Haezendonck-Goovaerts capital allocation rules
	18.00 - 18.15	61	**N. Borri**, G. Bonaccolto, A. Consiglio	Breakup and Default Risks in the Eurozone
	18.15 - 18.30	44	G. Canna, **F. Centrone**, E. Rosazza Gianin	Capital allocation rules and acceptance sets

1,2	**17.30 - 18.30**	**SHORT TALK - Portfolio** - *chair: F. Cesarone*		
	17.30 - 17.45	73	**S. Grassi**, F. Violante	Testing Asset Pricing Models Using Block-CHAR and Time Varying Betas
	17.45 - 18.00	96	F. Cesarone, **J.M. Ricci**, M. Pinar	Equal Risk Contribution Portfolios using MAD
	18.00 - 18.15	114	S. Corsaro, **V. De Simone**, Z. Marino	Split Bregman iteration for constrained multi-period portfolio optimization
	18.15 - 18.30	115	C. Donnini, **F. Gioia**	Asset Pricing with Interval Data

	20,00	**Social dinner**

FRIDAY 31				

	9.00 - 11.00	**CSEF - Empirical Finance** - *chair: T. Jappelli*		
	9.00 - 9.30		F. Broner, A. Martin, **L. Pandolfi,** T. Williams	Winners and Losers from Sovereign Debt Inflows: Evidence from the Stock Market
1,1	9.30 - 10.00		L. Gambacorta, **T. Oliviero**	Dividend Payouts: Are Financial Firms Different?
	10.00 - 10.30		B. Bruno, **I. Marino**	How Do Banks Respond to NPLs?
	10.30 - 11.00		L. Guiso, **T. Jappelli**	Financial Literacy and Portfolio Diversification

	9.00 - 11.00	**Risk Measures** - *chair: C. Morana*		
	9.00 - 9.30	28	**M. Arduca**, C. Munari, P. Koch-Medina	Dual representations for systemic risk measures based on acceptance sets *discussant:* **G. Canna**
1,2	9.30 - 10.00	56	**C. Morana**, G. Sbrana	Climate change implications for the catastrophe bonds market: An empirical analysis *discussant:* **J. Ojea Ferreiro**
	10.00 - 10.30	55	F. Bellini, P. Koch-Medina, **C. Munari**, G. Svindland	Law-invariant functionals: Properties and limitations *discussant:* **F. Centrone**
	10.30 - 11.00	62	L. Leanza, A. Sbuelz, **A. Tarelli**	Bail-in vs bail-out: Bank resolution and liability structure *discussant:* **A. Modena**

floor A	**11.00 - 11.30**	**Coffee Break**

	11.30 - 12.30	**SHORT TALK - Insurance** - *chair: M. Marino*		
	11.30 - 11.45	36	**A. M. Gambaro**	Time Consistent Solvency Capital Requirement under Solvency II
1,1	11.45 - 12.00	47	**M. Marino**, S. Levantesi	Mortality forecasting through a Neural Network Lee-Carter model: point estimation and parameter uncertainty
	12.00 - 12.15	84	**M. Brachetta**, H. Schmidli	Optimal Reinsurance and Investment in a Diffusion Model
	12.15 - 12.30	115	G. Castellani, U. Fiore, Z. Marino, L. Passalacqua, F. Perla,**S. Scognamiglio**, P. Zanetti	Machine Learning and Stochastic models for actuarial risks in Solvency II

1,2	**11.30 - 12.30**	**SHORT TALK - Financial Economics** - *chair: R. Ciciretti*		
	11.30 - 11.45	8	**M. Galeotti**, G. Rabitti, E. Vannucci	An evolutionary approach to fraud management
	11.45 - 12.00	50	R. Cerqueti, **R. Ciciretti**, A. Dalò, M. Nicolosi	Socially Responsible Investment Funds: A Chance To Reduce Systemic Risk
	12.00 - 12.15	65	M. D'Amato, **C. Di Pietro**, M. Pietroluongo, M.M. Sorge	Good co(o)p or bad co(o)p? Redistribution concerns and competition in credit markets with imperfect information
	12.15 - 12.30	117	G. De Marco, **C. Donnini,** F. Gioia, F. Perla	On the Fictitous Default algorithm in fuzzy financial networks

1,1	**12.30 - 13.30**	**SHORT TALK - Stochastic Calculus and Applications** - *chair: T. Vargiolu*		
	12.30 - 12.45	20	**G. Ferrari**, J. Dianetti	Nonzero-Sum Submodular Monotone-Follower Games: Existence and Approximation of Nash Equilibria
	12.45 - 13.00	35	E. Miller, E. Abi Jaber, H. Pham	Linear--Quadratic control for a class of stochastic Volterra equations: solvability and approximation
	13.00 - 13.15	49	F.M. Bandi, A. Kolokolov, D. E. Pirino, R. Renò	Realized moments: identification and pricing
	13.15 - 13.30	94	**T. Vargiolu**, T. Koch	Optimal Installation of Solar Panels with Price Impact: a Solvable Singular Stochastic Control Problem

1,2	**12.30 - 13.30**	**SHORT TALK - Risks** - *chair: A. Gnoatto*		
	12.30 - 12.45	7	**J. Ojea Ferreiro**	Disentangling the role of the exchange rate in oil-related scenarios for the European stock market
	12.45 - 13.00	16	**A. Gnoatto**, N. Seiffert	Valuation and Hedging in the presence of funding costs and collateralization in a multi-currency setting
	13.00 - 13.15	97	A. Gnoatto, **A. Picarelli**, C. Reisinger	Deep XVA solver
	13.15 - 13.30			

floor A	**13.30 - 14.30**	**Light Lunch**

DURING ALL THE WORKSHOP

POSTER ROOM		**POSTER SESSION**		
		6	Y. Jiao, C. Ma, S. Scotti, C. Zhou	The Alpha-Heston Stochastic Volatility Model
		9	A. Rubesam	The long and the short of risk parity
		15	M. Nendel, M. Röckner	Upper envelopes of families of Feller semigroups and viscosity solutions to a class of nonlinear Cauchy problems
		17	M. Uddin Ahmad	Sovereign debt and defaults: a global study using logistic regression
		21	G. Orlando, R.M. Mininni, M. Bufalo	Interest rates forecasting with the CIR#: How to make a single factor model to work
		26	F. Di Sciorio, S. Mattiozzi	Option Pricing under mBm in a risk neutral framework
		27	M. Azzone, R. Baviera	Normal Tempered Stable Additive processes for equity derivatives and power law scaling
		60	I. Colivicchi, R. Vignaroli	Forecasting the impact of information security breaches on stock market returns and VaR backtest
		64	I. Colivicchi, G. Iannucci	Can insurance drive the environmental firms' responsibility? An evolutionary model
		76	P. De Angelis, R. De Marchis, A.L. Martire, S. Patri	An alternative numerical approach to approximate the early exercise boundary of American options
		91	L. Gambarelli, S. Muzzioli	Risk-asymmetry indices in Europe
		93	L. Lampariello, C. Neumann, J.M. Ricci, S. Sagratella, O. Stein	Equilibrium selection for multi-portfolio optimization
		99	D. Palumbo, A. Harvey	Score-Driven Models for Realized Volatility