

May 4-6, 2023



**Euro Working Group
for
Commodities and Financial Modelling
67th Meeting**

**The Role of Fintech and Artificial
Intelligence in Risk Management
and Measurement**



SAPIENZA
UNIVERSITÀ DI ROMA



UnitelmaSapienza

Università degli Studi di Roma



DIPARTIMENTO DELLA PUBBLICA SICUREZZA
SCUOLA PERFEZIONAMENTO FORZE DI POLIZIA

THE EWG FOR COMMODITIES AND FINANCIAL MODELLING

The EURO Working Group for Commodities and Financial Modelling was founded in September 1986 in Lisbon by Jaap Spronk, Erasmus University, and Otto Loistl, University of Wien.

Since then, the Group has met on a semiannual basis in International Meetings, reaching the 67th meeting this year.

The primary field of interest of the Working Group can be described as "financial models that help to solve problems faced by financial decision-makers in the firm, intermediaries, and the investment community".

The main aims of the EWGCFM are:

- providing an international forum for exchange of information and experience on financial modelling;
- encouraging research in financial modelling (new techniques, methodologies, empirical studies, softwares, etc.);
- stimulating and strengthening the interaction between financial economic theory and the practice of financial decision making;
- cooperating and exchanging information with other universities and financial institutions throughout Europe.

The group counts today over 450 members from all over the world. A Francesco Paris' Award, for young scholars, was introduced in 2009 in memory of a former member of the Group who untimely left us.

The 67th meeting is focused on "*The role of fintech and artificial intelligence in risk management and measurement*" and we are honored to host three well known scholars in the field:

- ◇ Agostino Capponi, Columbia University, NYC, NY
- ◇ Nassim Nicholas Taleb, New Your University, NYC, NY
- ◇ Carol Alexander, University of Sussex, Brighton, UK

A Round Table on "*Fintech, Artificial Intelligence and Cybersecurity: The New Holy Trinity?*" is aimed to hold a close discussion and exploration on these topics with the contribution of industry experts and well known scholars.

VENUE

The meeting will be hosted in Piazza di Priscilla 6, by the Interagency Law-Enforcement Academy of Advanced Studies, which is housed in a beautiful-designed villa.

To access the Academy and reach the registration desk, you have to **show your ID to the person in charge at the entrance of the School.**

Registration and badge

You can register for the conference every day from 8:30.

None will be admitted to sessions or events without registration.

Wear your badge at all times on your right side. It is your pass to all conference sessions and events.

Conference Schedule

| | |
|-----------------|---------------|
| Thursday, May 4 | 08:30 - 18:15 |
| Friday, May 5 | 09:00 - 18:30 |
| Saturday, May 6 | 09:25 - 14:30 |

SCIENTIFIC COMMITTEE

Carol Alexander,
University of Sussex, Brighton

Mario Anolli,
Università Cattolica, Milan

Damiana Brigo,
Imperial College, London

Álvaro Cartea,
University of Oxford, Oxford

Rosella Castellano,
UnitelmaSapienza, Rome

Roy Cerqueti,
Sapienza University, Rome

Rita D'Ecclesia,
Sapienza University, Rome

Audrius Kabasinskas,
*University of Technology,
Kaunas*

Ahmet Karagozoglu,
Hofstra University, NYC, NY

Michael Koetter,
*University of Magdeburg,
Magdeburg*

Milos Kopa,
Charles University, Prague

Susanna Levantesi,
Sapienza University, Rome

Loretta Mastroeni,
Roma TRE University, Rome

Emilia Mioara,
*University of Bucharest,
Bucharest*

Giacomo Morelli,
Sapienza University, Rome

Anoop Rai,
Hofstra University, NYC, NY

Guido Rojers, Jr.,
University of Curacao, Curacao

Claire Rosenfeld,
*University of Kansas,
Lawrence, KS*

Rama Seth,
*Copenhagen Business School,
Copenhagen*

Aimee Smith,
Boston College, Newton, MA

Onno Steenbeek,
Erasmus University, Rotterdam

Tomáš Tichý,
University of Ostrava, Ostrava

Karen Watkins-Fassler,
*Universidad Internacional de La
Rioja, Logroño*

Stavros A. Zenios,
University of Cyprus, Nicosia

ORGANIZING COMMITTEE

*Chair: Rita Laura D'Ecclesia
Sapienza University, Rome*

*Rosella Castellano
Unitelma Sapienza, Rome*

*Susanna Levantesi
Sapienza University, Rome*

*Loretta Mastroeni
Roma TRE University, Rome*

*Giacomo Morelli
Sapienza University, Rome*

*Kevyn Stefanelli
Sapienza University, Rome*

*Myriam Vitulano
Sapienza University, Rome*

NETWORKING EVENTS

Advance reservations and tickets are required for all networking events.

Coffee Breaks

Coffee and tea breaks on Thursday, Friday and Saturday are complimentary for registered conference participants.

Lunches

Lunches will be complimentary for registered participants and served in the cloister of the Venue with the following schedules:

Thursday (12:40-13:45),

Friday (13:05-14:30),

Saturday (13:00-14:30).

Gala Dinner

The Gala Dinner will be held on May 5th at 8 p.m. in the Ozio Restaurant, in via Orazio 21, Rome.

Tickets for the Gala Dinner for reserved participants will be provided with the registration package.

Social events

Social events are organized for all participants on Saturday afternoon, May 6th, upon reservation.

Specific events are provided for accompanying persons on Friday, May 5th, upon reservation.

CONFERENCE AT A GLANCE

THURSDAY, MAY 4, 2023

8:30-18:00 Registration

8:30-09:00 **Opening Ceremony:** Welcoming Remarks

Major General Giuseppe La Gala,
Director of the Academy

Prof. Giovanna Jona Lasinio,
Dep. of Statistics, Sapienza University of Rome

Antonello Folco Biagini,
Chancellor of UnitelmaSapienza

Prof. Antonella Polimeni,
Chancellor of Sapienza University

Prof. Rita Laura D'Ecclesia,
Chair of the EWGCFM

9:00-10:40 Concurrent Sessions: 1A, 1B

10:40-11:00 Coffee Break

11:00-12:40 Concurrent Sessions: 2A, 2B

12:40-13:45 Lunch

13:45-15:15 **Plenary Session:**
Agostino Capponi, Columbia University

15:15-16:30 Session 3

16:30-17:00 Tea Break

17:00-18:15 Session 4

FRIDAY, MAY 5, 2023

| | |
|-------------|--|
| 9:00-10:40 | Concurrent Sessions: 5A, 5B |
| 10:40-11:00 | Coffee Break |
| 11:00-13:05 | Concurrent Sessions: 6A, 6B |
| 13:05-14:30 | Lunch |
| 14:30-16:00 | Plenary Session: Nassim Nicholas Taleb, NY University |
| 16:00-16:30 | Tea Break |
| 16:30-18:30 | Round Table: <i>“Fintech, Artificial Intelligence, and Cybersecurity: A New Holy Trinity?”</i> <i>Chair: Giuseppe Lusignani, Bologna University and Prometeia, Italy</i> <i>Participants:</i> Bruna Szegö, Head of AML, Bank of Italy, IT Edoardo Faletti, CRO Banco Popolare di Milano, IT Pasquale Cirillo, Zhaw University, CH Fabio Ugoste, Banca Intesa Sanpaolo, IT Vittorio Calvanico, COO Banca MPS, IT |
| 20:00-24:00 | Gala Dinner at Ozio Restaurant |

SATURDAY, MAY 6 2023

| | |
|-------------|---|
| 9:25-11:05 | Session 7 |
| 11:05-11:30 | Coffee Break |
| 11:30-12:45 | Plenary Session Carol Alexander , <i>University of Sussex</i> |
| 12:45-13:00 | Closing Remarks |
| 13:00-14:30 | Lunch |



Mark your calendar now!

The Khalifa University hosts two twin conferences:

December, 3-5, 2023, *18th Research In Options (RiO)*,

1st Abu Dhabi edition

December, 6-8, 2023, **68th EWGCFM Meeting**:

“Converging paths in commodity and financial markets analysis”

The Warsaw University hosts :

May, 21-25, 2024, **69th EWGCFM Meeting**:

“The role of sustainable finance on financial and commodity markets”

SPECIAL ISSUE

Papers presented at the Conference will be eligible to be published in the Special Issue of the Journal *Decisions in Economics and Finance*, Springer.

The **opening date** for submissions to the special issue is **July 1 2023** and the **closing date** is **December 31 2023**.



While ensuring the high quality of the papers to be published, the journal will follow an expedited review process. First-round referee reports are expected to be completed by March 2024 and the complete special issue should appear in 2024. Upon acceptance, papers will be published online.

CONFERENCE PROGRAM

THURSDAY, MAY 4

REGISTRATION

8:30-18:00

8:30

OPENING CEREMONY:

Welcoming Remarks

8:30-9:00

Prof. Antonella Polimeni,

Chancellor Sapienza University of Rome

Prof. Giovanna Jona Lasinio,

Dep of Statistics, Sapienza University of Rome

Major General Giuseppe La Gala,

Director of the Academy

Prof. Antonello Folco Biagini,

Chancellor Unitelma Sapienza

Prof. Rita Laura D'Ecclesia,

Chair of the EWGCFM

CONFERENCE PROGRAM

9:00

Thursday

1A. RISK MANAGEMENT

Chair: **Hayette Gatafoui**, IESEG School, Paris

9:00 Empirical Test of Multiple-Liability Immunization Conditions

Author(s): Joel Barber

Discussant: Jessica Riccioni

9:25 Solving Overall Risk Minimization by Stationary Policy Heuristics

Author(s): Martin Smid and Milos Kopa

Discussant: Patrycja Chodnicka-Jaworska

9:50 Systemic risk and reliability systems: a failure prediction model

Author(s): Jorgen Vitting Andersen, Roy Cerqueti, and

Jessica Riccioni

Discussant: Martin Smid

10:15 Are credit ratings agencies done lesson after 2008 global financial crisis- European and US banks' credit ratings as a result of covid-19 crisis

Author(s): Patrycja Chodnicka-Jaworska

Discussant: Mariacristina Uberti

10:40 Coffee Break

CONFERENCE PROGRAM

9:00

Thursday

1B. ALGOTRADING AND DEFI

Chair: Valeria D'Amato, University of Salerno, Salerno

9:00 *A financial trading system with optimized indicator setting, trading rule definition, and signal aggregation*

Author(s): Marco Corazza, Claudio Pizzi, and
Andrea Marchioni

Discussant: Annalisa Ferrari

9:25 *Automated Market Makers: Mean-Variance Analysis of LPs Payoffs and Design of Pricing Functions*

Author(s): Philippe Bergault, Louis Bertucci, David Bouba, and
Olivier Guéant

Discussant: Fayçal Drissi

9:50 *Decentralised Finance and Automated Market Making: Predictable Loss and Optimal Liquidity Provision*

Author(s): Álvaro Cartea, Fayçal Drissi, and Marcello Monga

Discussant: Marco Nicolosi

10:15 *Decentralised Finance and Automated Market Making: Execution and Speculation*

Author(s): Álvaro Cartea, Fayçal Drissi, and Marcello Monga

Discussant: Philippe Bergault

10:40 **Coffee Break**

CONFERENCE PROGRAM

11:00

Thursday

2A. DECISION MAKING

Chair: **Martin Branda**, Charles University, Prague

11:00 *Low-and-High- β -Stock Pair-Trading by Reinforcement Learning Policies*

Author(s): Eshagh Jahangiri, and Marco Corazza

Discussant: Álvaro Arroyo

11:25 *Who is influencing who? An analysis of the public opinion formation concerning the Twitter debate on wind energy*

Author(s): Loretta Mastroeni, Maurizio Naldi, and

Pierluigi Vellucci

Discussant: Karen Watkins-Fassler

11:50 *Fundraising management through Artificial Neural Networks*

Author(s): Diana Barro, Marco Corazza, and Martina Nardon

Discussant: Pierluigi Vellucci

12:15 *The Happiness of CEOs in Family Firms: Importance of Family Satisfaction and Affective Experiences in Financial/Business Decisions*

Author(s): Karen Watkins-Fassler and Mariano Rojas

Discussant: Eshagh Jahangiri

12:40 **Lunch**

CONFERENCE PROGRAM

11:00

Thursday

2B. SUSTAINABLE FINANCE

Chair: **Annalisa Ferrari**, Unitelma Sapienza University, Rome

11:00 *Empirical evidences of the transition risk in a credit-risk jump-diffusion model*

Author(s): Elia Smaniotto, Giulia Livieri, and Davide Radi

Discussant: Joel Barber

11:25 *Climate risk and Strategic Asset Allocation*

Author(s): Onno Steenbeek

Discussant: Ralph Steuer

11:50 *On Full ESG Integration by Means of an Add-On Module to Current ESG Portfolio Construction Procedures*

Author(s): Sebastian Utz and Ralph Steuer

Discussant: Onno Steenbeek

12:15 *On the relationship between financial and sustainable variables: insights from Graphical Gaussian Model*

Author(s): Carmine Da Fermo, Paola Mussile Tanzi,

Marco Nicolosi, and Elena Stanghellini

Discussant: Elia Smaniotto

12:40 **Lunch**

CONFERENCE PROGRAM

13:45

Thursday

Chair: **Carol Alexander**, University of Sussex, Brighton, UK



KEYNOTE SPEAKER:

Agostino Capponi, *Columbia University.*

***"Adoption and Risk Management of
Decentralized Fintech Platforms"***

15:15

3. NEW CHALLENGES IN ASSET PRICING

Chair: **Claudiu Vinte**, Bucharest University, Bucharest

15:15 *Algorithmic Collusion in Electronic Markets: The Impact of Tick Size*

Author(s): Álvaro Cartea, Patrick Chang, and José Penalva

Discussant: Andrea Marchioni

15:40 *Optimal Contingent Claim under Disappointment Aversion*

Author(s): Andrea Roncoroni and Paolo Guiotto

Discussant: Roy Cerqueti

16:05 *A stochastic model for evaluating the peaks of the commodity returns*

Author(s): Roy Cerqueti, Raffale Mattera,
and Alessandro Ramponi

Discussant: Álvaro Cartea

16:30 Tea Break

CONFERENCE PROGRAM

17:00

Thursday

4. VOLATILITY MODELLING

Chair: **Mariacristina Uberti**, University of Turin, Turin

17:00 What events matter for exchange rate volatility?

Author(s): Igor Martins

Discussant: Vladimír Holý

17:25 An Intraday GARCH Model for Discrete Price Changes and Irregularly Spaced Observations

Author(s): Vladimír Holý

Discussant: Claudiu Vinte

17:50 Does the NYSE Track the S&P 500, or is it the Other Way Around? Empirical Evidence that Index Volatility is Reverting to Market Volatility

Author(s): Claudiu Vinte and Marcel Ausloos

Discussant: Igor Martins

CONFERENCE PROGRAM

9:00

FRIDAY, MAY 5

5A. FINANCIAL MARKET ANALYSIS

Chair: **Rita Laura D'Ecclesia**, Sapienza University, Rome

9:00 Has Monetary Policy Announcements in Mexico Improved Transparency?

Author(s): Anoop Rai and Rama Seth

Discussant: Nikolas Topaloglou

9:25 GDP-linked bonds as a new asset class

Author(s): Ellie Papavaseiliou, Nikolas Topaloglou, and Stavros Zenios

Discussant: Rita Laura D'Ecclesia

9:50 The Shapley Value Approach to Financial Assets Equilibrium

Author(s): Haim Shalit

Discussant: Rosella Castellano

10:15 Debt sustainability and monetary policy: The case of ECB as set purchase

Author(s): Andrea Consiglio, Stavros Zenios, Gong Chen and Enrique Alberola

Discussant: Anoop Rai

10:40 Coffee Break

CONFERENCE PROGRAM

9:00

Friday

5B. INSURANCE AND PENSION FUNDS

Chair: **Susanna Levantesi**, Sapienza University, Rome

9:00 *Optimal investment decisions in a mixed Investment-Insurance
Cyber Risk Management*

Author(s): Alessandro Mazzocchi, Loretta Mastroeni, and
Maurizio Naldi

Discussant: Audrius Kabasinskas

9:25 *Quantile Mortality Modelling of Multiple Populations via Neural
Networks*

Author(s): Stefania Corsaro, Salvatore Scognamiglio, and
Zelda Marino

Discussant: Alessandro Mazzocchi

9:50 *Study of the Effect on the Introduction of a Lockdown
(COVID-19 pandemic) on Abnormal Return Rate*

Author(s): Marcin Kot

Discussant: Salvatore Scognamiglio

10:15 *On stress testing for pension funds*

Author(s): Audrius Kabasinskas, Miloš Kopa, Kristina Sutiene,
Ausrine Lakstutiene and Aidas Malakauskas

Discussant: Robinson Reyes Pena

10:40 **Coffee Break**

CONFERENCE PROGRAM

11:00

Friday

6A. DEEP/REINFORCEMENT LEARNING

Chair: **Anoop Rai**, Hofstra University, NYC

11:00 *Robo-Advising: Optimal Investment with Mismeasured and Unstable Risk Preferences*

Author(s): Henk Keffert

Discussant: Valeria D'Amato

11:25 *Learning to Collude: A Folk Theorem for Algorithms*

Author(s): Álvaro Cartea, Patrick Chang, José Penalva, and Harrison Waldon

Discussant: Henk Keffert

11:50 *Optimal dynamic fixed-mix portfolios by reinforcement learning*

Author(s): Giorgio Consigli and Alvaro Almeida Gomez

Discussant: Tomáš Tichý

12:15 *Learning Market data Anomalies*

Author(s): Marco Bianchetti, Marco Scaringi, and Manola Santilli

Discussant: Patrick Chang

12:40 *Deep Survival Analysis in the LOB: A Convolutional Transformer Approach to Estimating Fill Probabilities*

Author(s): Álvaro Arroyo, Álvaro Cartea,

Fernando Moreno-Pino and Stefan Zohren

Discussant: Giorgio Consigli

13:05 **Lunch**

CONFERENCE PROGRAM

11:00

Friday

6B. COMMODITY MARKETS MODELLING

Chair: **Audrius Kabasinskas**, University of Technology, Kaunas

11:00 *Effect of Pre IPO Litigation on the Choice of Issue Method*

Author(s): Supriya Katti, Edward Lawrence, and
Mehul Raithatha

Discussant: Hayette Gatfaoui

11:25 *A Novel Approach of the Long- and Short-term relationship
between Crude Oil and Natural Gas Prices*

Author(s): Hayette Gatfaoui

Discussant: Edward Lawrence

11:50 *Not All Oil Storage Shocks Are Alike: The case of WTI during
Times of Covid*

Author(s): Helyette Geman

Discussant: Raffaele Mattera

12:15 *Hierarchies in the commodity market*

Author(s): Roy Cerqueti and Raffele Mattera

Discussant: Andrea Roncoroni

12:40 *Short Selling Bans and Limits to Multi-Market Regulatory Arbitrage*

Author(s): Yu Hu, Pankaj Jain Suchismita Mishra, and
Robinson Reyes Pena

Discussant: Marcin Kot

13:05 **Lunch**

CONFERENCE PROGRAM

14:30

Friday

*Chair: Helyette Geman, Birkbeck University of London and
John Hopkins University, Baltimore, MD*



KEYNOTE SPEAKER:

Nassim Nicholas Taleb, *NYU-Tandon
School and Universa Investments*

"Statistical Consequences of Fat Tails"

16:00 Tea Break

CONFERENCE PROGRAM

16:30

Friday

ROUND TABLE: ***“Fintech, Artificial Intelligence, and Cybersecurity: A new Holy Trinity?”***

The no longer negligible and growing importance of the FinTech sector, requires the analysis of the associated risks, especially in relation to money laundering. Key issues refer to legality, security and reliability of transactions. All economic players who use or provide payment services such as cryptocurrencies or, more generally, financial services that are managed in a technologically advanced IT way have to deal with these issues.

Bringing together well known professionals and scholars experience we aim to shed lights on this topic.

Chair:

Giuseppe Lusignani, *University of Bologna and Prometeia, Italy*

Participants:

Bruna Szego, *Head of AML, Bank of Italy, Italy*

Edoardo Faletti, *CRO Banco Popolare di Milano, Italy*

Pasquale Cirillo, *Zhaw University, Switzerland*

Fabio Ugoste, *Banca Intesa Sanpaolo, Italy*

Vittorio Calvanico, *COO Banca Monte dei Paschi di Siena, Italy*

CONFERENCE PROGRAM

20:00

Friday

GALA DINNER

The EWG for Commodities and Financial Modelling invites you to join us in celebrating our 67th Meeting at **Ozio Restaurant, Via Orazio 21, Rome**, to spend a magical social evening on a rooftop overlooking Rome.

The panoramic terrace is a breathtaking location to share an aperitif with friends and admire the Eternal City at the sunset, sipping a glass of wine.

Enjoy a tasting gala dinner at Ozio Restaurant, a *modern Italian osteria* on the seventh floor of the Orazio Palace Hotel.

The price for person is 80€.

CONFERENCE PROGRAM

9:25

SATURDAY, MAY 6

7. PORTFOLIO STRATEGIES

Chair: **Patrycja Chodnicka-Jaworska**, University of Warsaw

9:25 *Portfolio Optimization with Higher Moments-to-Expected Regret of Drawdown*

Author(s): Veronica Mammetti and Giacomo Morelli

Discussant: Stavros Zenios

9:50 *Hedging political risk under ambiguity*

Author(s): Stavros Zenios, Giovanni Pagliardi and Somayye Lotfi

Discussant: Martin Branda

10:15 *Systemic Risk Detection Using Entropy Approach in Portfolio Selection Strategy*

Author(s): David Neděla and Tomáš Tichý

Discussant: Loretta Mastroeni

10:40 *Penalty Method for Cardinality Constrained Optimization Problems with an Application in Portfolio Theory*

Author(s): Martin Branda and Monika Kalatová

Discussant: Kevyn Stefanelli

11:05 **Coffee Break**

CONFERENCE PROGRAM

11:30

Saturday

Chair: **Rosella Castellano**, *Unitelma Sapienza, Rome, Italy*



KEYNOTE SPEAKER:

Carol Alexander, *University of Sussex*
"Regulating Crypto"

13:00 CLOSING REMARKS

Chair EWGCFM , **Rita Laura D'Ecclesia**, Sapienza University

13:15 Lunch

SOCIAL PROGRAM

Social events are one of the most awaited activities at any conference.

A guided tour to discover the treasures of Rome is organized for all the Conference participants on Saturday, May 6.

For the accompanying people we organized a visit to various special areas of Rome, here some of the examples:

1. The Jewish Quarter Tour

A magic tour within the streets and tastes of the ancient Jewish ghetto of Rome.

2. Rome wasn't built...

Discover 2600 years of history of the City where it all began.

3. Rione Borgo

We will explore one of the most iconic quarter of the City located between the Vatican walls and the Castel Sant'Angelo.

Useful information

- Visits include an English speaking guide, tickets and earphones.
- Duration: max 3 hours.

KEYNOTE SPEAKERS



Agostino Capponi

Professor in the Department of Industrial Engineering and Operations Research at Columbia University, where he is also the founding director of the Columbia Center for Digital Finance and Technology. His current research interests are in financial technology, market microstructure, systemic and liquidity risk, and economic networks.

Agostino's research has been funded by major agencies, including NSF, DARPA, DOE, IBM, GRI, INET, Ripple, and the Ethereum foundation. His research has been recognized with the 2018 NSF CAREER award, and with a JP Morgan AI Research Faculty award. His research has also been covered by various media outlets, including Bloomberg, the Financial Times, Vox, and the Oxford Business Law. Agostino is a fellow of the crypto and blockchain economics research forum, and an academic fellow of Alibaba's Luohan academy. He serves as an editor of Management Science in the Finance Department, co-editor of Mathematics and Financial Economics, and area editor of Operations Research Letters.

He also serves as an associate editor of major journals in his field, including Operations Research, the SIAM Journal on Financial Mathematics, Finance and Stochastics, and Stochastic Systems. Agostino is the former Chair of the SIAG/FME Activity Group and of the INFORMS Finance Section, and is currently a member of the Council of the Bachelier Finance Society.

KEYNOTE SPEAKERS

Agostino Capponi, *Columbia University, NYC*

*"Adoption and Risk Management of Decentralized
Fintech Platforms"*

Abstract: Blockchain is a distributed ledger technology built around the principles of transparency and decentralization. Initially conceived as the backbone technology to enable cryptocurrency payments, blockchain has expanded to support a large class of business applications, ranging from financial to supply chain services. In this talk, we argue that the current design of smart contract enabling blockchains may severely limit the adoption of decentralized financial (DeFi) innovations. We begin by discussing adoption of automated Market Makers (AMMs), the most prominent class of blockchain-based decentralized exchanges (DEXs). We show that limited adoption arises because of the priority fee order-processing mechanism and the liquidity pooling nature of DEXs. We then discuss allocative inefficiencies of existing blockchains, and the operational risks arising from the transparent observability of transactions, which exposes users to the risk of being frontrun by malicious actors. We show that existing solutions based on private off-chain communication channels designed to mitigate miner extractable value cannot fully align the economic incentives of users and validators, and thus do not yield allocative efficiency. We conclude with a brief highlight of adoption and risk management challenges faced by DeFi supporting blockchains.

KEYNOTE SPEAKERS



Nassim Nicholas Taleb

Nassim spent 21 years as a risk taker (quantitative trader) before becoming a researcher in philosophical, mathematical and (mostly) practical problems with probability.

Taleb is the author of a multivolume essay, the Incerto (The Black Swan, Fooled by Randomness, Antifragile, and Skin in the Game) covering broad facets of uncertainty. His work has been published into 49 languages.

In addition to his trader life, Taleb has also written, as a backup of the Incerto, more than 70 technical and scholarly papers in mathematical statistics, genetics, quantitative finance, statistical physics, medicine, philosophy, ethics, economics, international affairs, around the notion of risk and probability (grouped in the Technical Incerto).

Taleb is currently Distinguished Professor of Risk Engineering at NYU's Tandon School of Engineering (retired) and scientific advisor for Universa Investments. His current focus is on the properties of systems that can handle disorder ("antifragile").

Taleb refuses all honors and anything that "turns knowledge into a spectator sport".

KEYNOTE SPEAKERS

Nassim Nicholas Taleb, *NYU-Tandon School and
Universa Investments*

"Statistical Consequences of Fat Tails"

Abstract: A talk around topics from Statistical Consequences of Fat Tails: Real World Epistemology, Preasymptotics, and Applications (2020). The monograph investigates the misapplication of conventional statistical techniques to fat tailed distributions and looks for remedies, when possible.

Switching from thin tailed to fat tailed distributions requires more than "changing the color of the dress". Traditional asymptotics deal mainly with either $n=1$ or $n=\infty$, and the real world is in between, under of the "laws of the medium numbers" --which vary widely across specific distributions. Both the law of large numbers and the generalized central limit mechanisms operate in highly idiosyncratic ways outside the standard Gaussian or Levy-Stable basins of convergence.

A few examples:

- The sample mean is rarely in line with the population mean, with effect on "naive empiricism", but can be sometimes be estimated via parametric methods.
- The "empirical distribution" is rarely empirical.
- Parameter uncertainty has compounding effects on statistical metrics.
- Dimension reduction (principal components) fails.
- Inequality estimators (GINI or quantile contributions) are not additive and produce wrong results.
- Many "biases" found in psychology become entirely rational under more sophisticated probability distributions

Most of the failures of financial economics, econometrics, and behavioral economics can be attributed to using the wrong distributions.

KEYNOTE SPEAKERS



Carol Alexander

Expert in crypto asset and derivatives markets, financial risk analysis, high-frequency data analysis, blockchains, pricing and hedging financial instruments, volatility analysis, investment strategies, benchmarking and portfolio management.

Carol Alexander is currently Professor of Finance at the University of Sussex and Visiting Professor at Peking University Business School.

She edited the Journal of Banking and Finance from 2013 until 2023.

Carol has designed and implemented mathematical models for pricing, trading, hedging and risk assessment for a wide range of asset management and investment banking clients, including some of the largest global exchanges such as the New York Stock Exchange, the Intercontinental Exchange and the FTX.US Exchange.

She is the sole author of the best-selling textbook “Market Models” and of the four-volume textbook series Market Risk Analysis.

Her latest textbook “Corruption and Fraud in Financial Markets” was edited with Douglas Cumming.

In 2022 was voted as a top 10 Women Quants on Wall Street, the top 10 Quant Professors and the top 10 Crypto Voices, in polls conducted by Rebellion Research.

She held corporate roles as a Director and Head of Market Risk Modelling for Nikko Securities; as a Director of Algorithmics Inc.; and as a Bond Analyst for Phillips & Drew, City of London.

She has a BSc in Mathematics with Experimental Psychology and a PhD in Algebraic Number Theory from the University of Sussex, and an MSc in Mathematical Economics and Econometrics from the London School of Economics.

KEYNOTE SPEAKERS

Carol Alexander, University of Sussex

"Regulating Crypto"

Abstract: The products and process used in crypto present numerous operational risks that are entirely new to financial markets. Last year the attack on Terra's algorithmic stablecoin, the collapse of FTX and the subsequent contagion throughout the ecosystem could have marked a turning point. Instead, the price of bitcoin rose by 43% in January 2023. Price and volume manipulation is present in every type of crypto market. Most trading of crypto assets happens on platforms that have no external regulation whatsoever -- Ponzi schemes and rug pulls are rife, yet projects that build on the honest principles of decentralized finance are commonly defeated by pump-and-dump, and most retail traders have no idea that their collateral account could be wiped out entirely by the exchange itself, without any warning. Following an overview of crypto products, processes and risks I focus on the extraordinary, dangerous and completely unregulated growth of Binance and tether.

The next EWGCFM meetings:

December 6-8, 2023: **68th EWGCFM Meeting**

*“Converging paths in
commodity and financial
markets analysis”*



Organizer:

Prof. Giorgio Consigli,

Khalifa University, Abu Dhabi, UAE

May 21-25, 2024: **69th EWGCFM Meeting**



*“The role of sustainable
finance on financial and
commodity markets”*

Organizer:

Prof. Patrycja Chodnicka-Jaworska

Warsaw University, Warsaw, Poland

Participants

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Henk Keffert, Tilburg University, NL

Audrius Kabasinskas, Kaunas University, LT

Marcin Kot, University of Warsaw, PL

Edward Lawrence, Florida Int. University, US

Susanna Levantesi, Sapienza University, IT

Giuseppe Luisignani, University of Bologna and Prometeia, IT

Veronica Mammetti, Sapienza University, IT

Andrea Marchioni, University of Tuscia, IT

Mattia Margonari, Sapienza University, IT

Igor Martins, Insper Research Institute, BR

Loretta Mastroeni, Roma TRE University, IT

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Daniela Migliasso, Banca Intesa Sanpaolo, IT

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Haim Shalit, Ben Gurion Univ. of the Negev, IL
Elia Smaniotto, University of Florence, IT
Martin Smid, Czech Academy of Sciences, CZ
Onno Steenbeek, Erasmus University, NL
Kevyn Stefanelli, Sapienza University, IT
Ralph Steuer, University of Georgia, USA
Mario Strassberger, Zittau/Goerlitz Univ., DE
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Nassim Nicholas Taleb, NYU-Tandon School, US
Tomáš Tichý, University of Ostrava, CZ
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Claudiu Vinte, Bucharest University, RO
Karen Watkins-Fassler, Univ. Int. La Rioja, ES
Stavros Zenios, University of Cyprus, CY
Zdeněk Zmeškal, University Ostrava, CZ

Notes

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



Rome, May 4-6 2023