



UNIVERSITÀ
DEGLI STUDI
FIRENZE

DISEI
DIPARTIMENTO DI SCIENZE
PER L'ECONOMIA E L'IMPRESA

ensiie
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pour l'industrie et l'entreprise



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PARIS-SACLAY

Conference

First Florence-Paris Workshop on Mathematical Finance

Florence, Italy · 27–29 October 2021

LABEX
Louis Bachelier



Laboratoire de
Mathématiques
et Modélisation
LaMME
d'Évry

Tentative Program

Wednesday, 27 October 2021

Venue: Rettorato, Aula Magna, Piazza san Marco 4, Florence.

13:30–14:00 Registration

13:45–14:00 Opening

Chair: Maria Elvira Mancino

Estimation

14:00–14:30 **Josef Teichmann**

Model free deep hedging

14:30–15:00 **Carlo Sgarra**

A Barndorff-Nielsen and Shephard model with leverage
in Hilbert space for commodity forward markets

15:00–15:15 **Riccardo Brignone**

Commodity Asian option pricing and simulation
in a 4-factor model with jump clusters

15:15–15:45 Coffee break

Chair: Nizar Touzi

Rough volatility models

15:45–16:15 **Sergio Pulido Nino**

American options in the rough Heston model

16:15–16:45 **Josep Vives**

Decomposition formula for rough Volterra stochastic volatility models

16:45–17:00 **Alessandro Bondi**

The rough Heston model with self-exciting jumps

17:15–18:30 Visit to the Florence historic center

Thursday, morning, 28 October 2021

Venue: Social Sciences campus, building: D15, room: 005, Via delle Pandette 9, Florence

Chair: Etienne Chevalier
Optimization

09:00–09:30 **Huyen Pham**

Optimal bidding strategy for targeted advertising

09:30–10:00 **Giovanni Puccetti**

We love swapping (when simple necessary conditions are close-to-optimal)

10:00–10:30 **Cristina Di Girolami**

On the dynamic programming approach to optimal control of equations with delay in the control: a deterministic case

10:30–11:00 Coffee break

Chair: Giacomo Toscano
Dependence

11:00–11:30 **Fabrizio Durante**

Limiting dependence structure for univariate tail events

11:30–12:00 **Cyril Benezet**

Transform MCMC schemes for sampling intractable factor copula models

12:00–12:15 **Imma Curato**

Modeling spatio-temporal data using mixed moving average random fields

12:30–14:00 Lunch at College House, Via Tosi 3

Thursday, afternoon, 28 October 2021

Venue: Social Sciences campus, building: D4, room: 103, Via delle Pandette 9, Florence

Chair: Vathana Ly Vath
Mean-Field Games and BSDE

14:00–14:30 **Nizar Touzi**
Mean field game of mutual holding

14:30–15:00 **Emanuela Rosazza Gianin**
Capital allocation rules via BSDEs

15:00– 15:15 **Giulia Livieri**
Mean-field games of finite-fuel capacity expansion with singular controls

15:15–15:30 **Ofelia Bonesini**
A McKean-Vlasov game of commodity production consumption and trading

15:30–16:00 Coffee break

Chair: Ilaria Colivicchi
Volatility

16:00–16:30 **Julien Guyon**
Dispersion-Constrained Martingale Schrodinger Problems
and the Joint S&P 500/VIX Smile Calibration Puzzle

16:30–17:00 **Giulia Iori**
The complete Gaussian kernel in the multi-factor Heston model:
option pricing and implied volatility applications

17:00–17:15 **Tommaso Mariotti**
Volatility estimation under the Queue-Reactive model

19:00 Conference dinner at restaurant Frescobaldi, Piazza della Signoria 31

Friday, 29 October 2021

Venue: Social Sciences campus, building: D4, room: 103, Via delle Pandette 9, Florence

Chair: Carlo Sgarra
Affine processes

9:15–9:45 **Christa Cuchiero**
Signature SDEs as affine and polynomial processes

9:45–10:15 **Chao Zhou**
The alpha-Heston volatility model

10:15–10:30 **Luca Gonzato**
Efficient quasi-Bayesian estimation of affine option pricing models using risk-neutral cumulants

10:30–11:00 Coffee break

Chair: Simone Scotti
Firms

11:00–11:30 **Johannes Ruf**
The growth-optimal portfolio in fund models

11:30–12:00 **Ying Jiao**
Bridging socioeconomic pathways of carbon emission and credit risk

12:00–12:15 **Aaraona Rakotoarivony**
Corporate financing and dividend management with funding cost

12:15–12:30 Closing of the Workshop

13:00–17:00 Visit to the Chianti Valley
