Bachelier Colloquium in Mathematical Finance and Stochastic Calculus, January 7-11 2019

Session 1 (large room).

Monday 7th of January.

Chairman: Martin Schweizer.

14:00-14:15 Opening session. **By Yuri Kabanov.**

14:15-14:45 Sharing profits in the sharing economy. **By Paolo Guasoni.**

14:55-15:25 Multiple curve Lévy forward price model allowing for negative interest rates. **By Ernest Eberlein.**

15:35-16:05 Market making regulation and extension to oligopoly. **By Thibaut Mastrolia.**

Coffee break.

Chairman: Thibaut Mastrolia.

16:30-17:00 Quadratic optimisation problems with deterministic information. **By Martin Schweizer.**

17:10-17:40 The robust super-replication problem: a dynamic approach. **By Johannes Wiesel.**

17:50-18:20 General equilibrium for infinite dimensional commodity space. **By Aqzzouz Belmesnaoui.**

Tuesday 8th of January.

Chairman: Emmanuel Lépinette.

14:00-14:30 Systems of nonlinear forward Kolmogorov equations. **By Yana Belopolskaya.**

14:40-15:10 Optimization problem for a portfolio with an illiquid asset in the case of an exponential utility function. **By Ljudmila Bordag.**

15:20-15:50 Pricing in a non-linear incomplete market with default: the case of European options. **By Miryana Grigorova.**

16:00-16:30 On solving multidimensional optimal stopping problems for Levy processes. **By Elena Boguslavskaya.**

Coffee break.

Chairman: Miryana Grigorova.

16:55-17:25 Novel Esscher densities and explicit pricing formula for markets with random horizon. **By Tahir Choulli.**

17:35-18:05 The joint law of the maximum and terminal value of a max-continuous local submartingale. **By Alexander Gushchin.**

18:15-18:45 When Capital is a Funding Source: The XVA Anticipated BSDEs. **By Stéphane Crépey.**

Wednesday 9th of January.

Chairman: Sahar Albosaily.

14:00-14:30 About some our results with Mark Yor on stochastic integral representation and those which were not completed. **By Albert Shiryaev.**

14:40-15:10 Regime switching models and their relations to polymodels. **By Raphael Douady.**

15:20-15:50 Rough covariance modeling theory and empirics. **By Christa Cuchiero.**

16:00-16:30 Bayesian models for prediction of deposit churn profile and net income from acquiring. **By Evgeny Burnaev.**

Coffee break.

Chairman: Elena Boguslavskaya.

16:55-17:25 The risk-tolerance process and the sensitivity of optimal investment and consumption. **By Christoph Czichowsky.**

17:35-18:05 The Cramér-von Mises test for gamma distribution family. **By Gennady Martynov.**

18:15-18:45 On pricing rules and optimal strategies in general Kyle-Back models. **By Albina Danilova.**

18:55-19:15 Cryptocurrency prices and transactions. **By Rostislav Berezovskiy.**

Thursday 10th of January.

Chairman: Monique Jeanblanc. **Special session " electricity markets "**.

14:00-14:30 Bid-ask spread analysis in the German power market. **By Clara Balardy.**

14:40:15:10 A Multifactor approach to modelling the impact of wind energy on electricity spot prices. **By Pierre Gruet.**

15:20-15:50 Estimating fast mean-reverting jumps in electricity market models. **By Thomas Deschatre.**

16:00-16:30 Optimal remuneration of correlated consumers in electricity demand. **By Emna Hubert.**

Coffee break.

Chairman: Pierre Kiener.

16:55-17:25 Voltage and reactive power control using approximate stochastic annealing. **By Eugene Feinberg.**

17:35-18:05 Mean-reverting additive energy forward curves in a Heath-Jarrow-Morton framework. **By Tiziano Vargiolu.**

18:15-18:45 A general approach to non-Markovian time-inconsistent stochastic control for sophisticated players. **By Dylan Possamai.**

Friday 11th of September.

Chairman: Christa Cuchiero.

14:00-14:30 Branching random walks in non homogeneous environments and their applications. **By Elena Yarovaya.**

14:40-15:10 Random projections of stochastic differential equations. **By Joseph Teichmann.**

15:20-15:50 On the Tanaka formula for symmetric α-stable processes, $0 < \alpha < 2$. **By Hans-Jurgen Engelbert.**

16:00-16:30 McKean-Vlasov backward-forward stochastic differential equations and MK-V. nonzero sum stochastic differential games. **By Said Hamadene.**

Coffee break.

Chairman: Yuri Kabanov.

16:55-17:25 Asymptotics for small nonlinear price impact: a PDE homogenization approach to the multidimensional case. **By Thomas Cayé.**

17:35-18:05 Affine modeling of insurance and financial markets. **By Thorsten Schmidt.**

18:15-18:45 Numerics for Markovian lifts of fractional processes. **By Philipp Harms.**