

Conference on Numerical Methods in Finance

Program of April the 15th

8 h 30 – 09 h 00	Registration	
9 h 00 – 09 h 30	Welcome talks : Philippe Courtier (École des Ponts ParisTech), Bruno Dejoux (Société Générale), Nicole El Karoui (Chaire « Risques Financiers »)	
9 h 30 – 10 h 30	Arturo Kohatsu-Higa (University of Osaka) <i>Approximations for SDE's driven by Lévy processes</i>	
10 h 30 – 11 h 00	Coffee break	
11 h 00 – 13 h 00	Parallel sessions	
	----- Amphithéâtre Cauchy	----- Amphithéâtre Navier
	Ioannis Kyriakou (Cass Business School) <i>An improved convolution algorithm for discretely sampled Asian options</i>	Antonio Falco (Universidad CEU Cardenal Herrera) <i>A multiobjective approach using consistent rate curves to the calibration of a heath-Jarrow-Morton Model</i>
	El Hadj Aly Dia (Université Paris Est) <i>Connecting Continuous and Discrete Lookback and Hindsight Options under Exponential Levy Model</i>	Orlando Oliveira (University of Coimbra) <i>Libor Convexity Adjustments</i>
	Stefanie Müller (University of Kaiserslautern - Department of Mathematics) <i>The decoupling approach to binomial pricing of multi-asset options</i>	Christoph Kaebe (Universitaet Trier) <i>Speedup of calibration of financial market models through adjoints and model reduction</i>
	Antonino Zanette (Dipartimento finanza Universita di Udine) <i>A bivariate model for evaluating fair premiums of equity-linked policies with maturity guarantee and surrender option</i>	Junbo Huang (INRIA Sophia Antipolis) <i>Approximations of boundary conditions for HJB equations by using stochastic algorithms</i>
13 h 00 – 14 h 30	Lunch	
14 h 30 – 15 h 30	Rama Cont (CNRS & Columbia University) <i>Too interconnected to fail : contagion and systemic risk in financial networks</i>	
15 h 30 – 15 h 45	Presentation of PREMIA Software	
15 H 45 – 16 h 15	Coffee break	
16 h 15 – 18 h15	Parallel sessions	
	----- Amphithéâtre Cauchy	----- Amphithéâtre Navier
	Fang Fang (Delft University of Technology) <i>The COS Method in Pricing Bermudan and Barrier options under Heston's model</i>	Nan Chen (Chinese University of Hong Kong) <i>Localization and exact simulation of stochastic differential equations</i>
	Nicolas Lantos (Université Paris 6) <i>Boundary conditions in option pricing</i>	Peter Tankov (Ecole Polytechnique – CMAP) <i>Jump-adapted discretization schemes for Levy-driven SDEs</i>
	Stefanie Schraufstetter (TU München - Institut für Informatik) <i>Option pricing with theta-calculus and sparse grids</i>	Josef Teichmann (TU Wien) <i>A new approach to SPDEs with applications to numerics in interest rate theory</i>
	Ekaterina Voltchkova (TSE-Université Toulouse 1) <i>Localization of the Black-Scholes equation using transparent boundary conditions</i>	Jérôme Lelong (ENSTA) <i>Robust adaptive importance sampling for normal random vectors</i>

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9 h 00 – 10h 00	Min Dai (National University of Singapore) <i>Numerical methods for Portfolio selection with transaction costs</i>	
10 h 00 – 10 h 30	Coffee break	
10 h 30 – 12 h 30	Parallel sessions	
	----- Amphithéâtre Cauchy	----- Amphithéâtre Navier
	Michèle Bonollo (Banco Popolare, University of Padova) <i>The VaR estimation in historical simulation approach: open issues and some proposals</i>	Abdul Khaliq (Middle Tennessee State University) <i>New numerical scheme for pricing american options with regime-switching</i>
	Jochen Dorn (Université Paris I - panthéon Sorbonne) <i>A CDO Option market model for standardized CDS index tranches</i>	Chaabane Najeh (Institut supérieur de Gestion de Sousse) <i>Evaluation and optimization of new projects in mining sector : an approach using real option theory & dynamic programming</i>
	Jean Hu <i>Modelling subordinated stochastic processes with student and generalized secant hyperbolic increments : empirical study of speculative energy markets</i>	Sergio Polidoro (Università degli studi di Modena e Reggio Emilia - Dipartimento di matematica pura ed applicata) <i>Optimal regularity in the obstacle problem for path-dependent American options</i>
	Uwe Wystup (Frankfurt school of Finance & Management) <i>FX Basket options valuation with smile</i>	Michel Vellekoop (University of Twente) <i>Path-dependent dividends and the American put option</i>
12 h 30 – 14 h 00	Lunch	
14 h 00 – 15 h 00	Pierre Henry-Labordère (Société Générale) <i>Numerical methods for non linear problems in quantitative finance</i>	
15 h 00 – 15 h 30	Coffee break	
15 h 30 – 17 h30	Parallel sessions	
	----- Amphithéâtre Cauchy	----- Amphithéâtre Navier
	Peter Dobranszky (Finanalyse SA - Fortis Bank - Katholieke Universiteit Leuven) <i>Option pricing using numerically evaluated characteristic functions</i>	Gonçalo Dos Reis (Humboldt University) <i>Path regularity and explicit convergence order for truncated quadratic growth BSDEs</i>
	Han Lee (RBS) <i>Mixed volatility dynamics: numerical calibration of cross currency models</i>	Azmi Makhlof (Université de Grenoble - Laboratoire Jean Kuntzmann) <i>L2-time regularity of BSDEs with irregular terminal functions</i>
	Jan Maruhn (UniCredit Group) <i>A projection-based algorithm for the Calibration of financial market models</i>	Mohamed Mnif (ENIT) <i>Portfolio optimization with stochastic volatilities : a backward approach</i>
		Nasir Rehman (Abdus Salam School of Mathematical Sciences GC University Lahore) <i>The American foreign exchange option in time-dependent one-dimensional diffusion model for exchange rate</i>
20 h 45	Conference dinner at the Musée d'Orsay including a visit of the museum from 18 h 30 to 20 h 30	

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Program of April the 17th

9 h 00 – 10h 00	Damiano Brigo (Fitch Solutions) <i>Credit derivatives pre- and in – crisis: dynamical models implying armageddon scenarios and extreme losses</i>	
10 h 00 – 10 h 30	Coffee break	
10 h 30 – 12 h 30	Parallel sessions	
	Amphithéâtre Cauchy	Amphithéâtre Navier
	Juan-Pablo Ortega (CNRS) <i>Garch options via local risk minimization</i>	Noufel Frikha (Université Paris VI) <i>Computation of value-at-risk and conditional value-at-risk using stochastic approximation and adaptive unconstrained importance sampling</i>
	Tony Lelièvre (ENPC) <i>Nonlinear approximation approach for solving high-dimensional PDEs</i>	Reiichiro Kawai (Osaka University) <i>Recent developments on financial greeks computation for models with Lévy Processes</i>
	Nikolai Dokuchaev (Trent University - Department of Mathematics) <i>Reduction of impact of forecast errors and myopic portfolio strategies</i>	Joan-Andreu Lazaro-Cami (Centre de Recerca Matemàtica) <i>Antithetic variates in higher dimensions</i>
	Kacem Zied <i>Risk reduction using wavelets for denoising principal components regression models</i>	Nathalie Packham (Frankfurt school of Finance & Management) <i>Latin hypercube sampling with dependence and applications in finance</i>
12 h 30 – 14 h 00	Lunch	
14 h 00 – 15 h 00	Yacine Aït Sahalia (Princeton University) <i>The fine characteristics of jumps and volatility in high frequency financial data</i>	
15 h 00 – 15 h 30	Coffee break	
15 h 30 – 17 h30	Parallel sessions	
	Amphithéâtre Cauchy	Amphithéâtre Navier
	Florence Guillaume (K.U. Leuven) <i>Implied Lévy volatility</i>	Michael Aichinger (Industrial Mathematics competence center Linz) <i>Longstaff Schwartz revisited : a least squares approach for valuating bermudan multi-factor interest rate derivatives</i>
	Mohamed Miri (Pricing Partners and LJK) <i>Time dependent Heston model</i>	Jean-François Chassagneux (ENSAE) <i>Pricing convertible bonds with call protection</i>
	Mohamed Sbai (Ecole des Ponts – CERMICS) <i>Coupling index and stocks</i>	Abass Sagna (Université Paris 6 – PMA) <i>Asymptotics of the maximal radius of an Lr optimal sequence of quantizers</i>
	Gabriel Turinici (University Paris Dauphine) <i>Local volatility surface for illiquid currency pairs</i>	Benedikt Wilbertz (Université de Paris VI) <i>Constructing rate-optimal quantizers for Gaussian processes under sup-norm distortion</i>