

ECONOPHYSICS COLLOQUIUM 2015 (PRAGUE)

Detailed schedule



Monday 14 th September 2015	
8:00 – 18:00	Registration
8:45 – 9:00	Welcome (Room 109) Gregor, Martin , <i>Director of Institute of Economic Studies</i> (Charles University in Prague) Kristoufek, Ladislav (Charles University in Prague & Czech Academy of Sciences, Czech Republic)
9:00 – 10:30	Session A: Invited speakers (Room 109) <i>Agent-based modeling of R&D networks: Simulation, calibration, validation</i> Schweitzer, Frank (ETH Zurich, Switzerland) <i>Practical application of mathematical models of business firm networks</i> Takayasu, Misako (Tokyo Institute of Technology, Japan) <i>New metrics for economic complexity: Measuring the intangible growth potential of countries</i> Pietronero, Luciano (Sapienza University of Rome, Italy)
10:30 – 11:00	Coffee break
11:00 – 12:40	Session B1: Agent-Based Modeling (Room 109) <i>What moves the Beveridge curve and the Phillips curve: An agent-based analysis</i> Desiderio, Saul (Shantou University Business School, China) <i>Animal spirits in open economy: An interaction-based approach to bounded rationality</i> Jang, Tae-Seok (Seoul National University & Kongju National University, Korea)

	<p><i>The impact of the Tobin tax in a heterogeneous agent model of the foreign exchange market</i> Staněk, Filip (Charles University in Prague, Czech Republic)</p> <p><i>Confidence and self-attribution bias in an artificial stock market</i> Bertella, Mario Augusto (Sao Paulo State University, Brazil)</p> <p><i>Simulated MLE of a financial agent-based herding model</i> Kukačka, Jiří (Charles University in Prague, Czech Republic)</p>
11:00 – 12:40	<p>Session B2: Networks & Complex Systems I (Room 206)</p> <p><i>Collaboration networks of scientists</i> Petroni, Filippo (University of Cagliari, Italy)</p> <p><i>A network of networks perspective on global trade</i> Maluck, Julian (Potsdam Institute for Climate Impact Research, Germany)</p> <p><i>Network effects on an agent-based market model with herding behavior</i> Patiño, Adrián Carro (IFISC, Spain)</p> <p><i>Understanding systemic risk of the economy using credit network model</i> Yim, Kyubin (POSTECH, Korea)</p> <p><i>Diversification versus specialization in complex ecosystems</i> Di Clemente, Riccardo (Istituto dei Sistemi Complessi, Italy)</p>
11:00 – 12:40	<p>Session B3: Macroeconomics & Policy (Room 314)</p> <p><i>Optimizing social inequalities in probabilistic labor markets</i> Chen, He (Graduate School of Information Science and Technology, Hokkaido University, Japan)</p> <p><i>Evaluating macroprudential policies in a dynamical model of the Basel leverage cycle</i> Caccioli, Fabio (University College London, United Kingdom)</p> <p><i>How the taxonomy of products drives the economic development of countries</i> Zaccaria, Andrea (Istituto dei Sistemi Complessi, Italy)</p> <p><i>Mathematical modeling of population growth</i> Balyakin, Artem (NRC „Kurchatov Institute“, Russia)</p> <p><i>Business cycle synchronization of the Visegrad Four and the European Union</i> Hanus, Luboš (Czech Academy of Sciences, Czech Republic)</p>
12:40 – 14:10	Lunch
14:10 – 16:10	<p>Session C: Invited speakers (Room 109)</p> <p><i>Quantifying economic behaviour using online data</i> Preis, Tobias (Warwick Business School, United Kingdom)</p> <p><i>Exact solution for semi-Markov network dynamics</i> Scalas, Enrico (University of Sussex, United Kingdom)</p> <p><i>Fluctuation-dissipation relations derived from high-quality order-book data of foreign exchange market</i> Takayasu, Hideki (Sony CSL & Meiji University, Japan)</p> <p><i>An overview: Where are we?</i> Di Matteo, Tiziana (King's College London, United Kingdom)</p>
16:10 – 16:40	Coffee break
16:40 – 18:00	<p>Session D1: Financial Markets I (Room 109)</p> <p><i>Systemic risk in Polish banking sector</i> Gubiec, Tomasz (University of Warsaw, Poland)</p> <p><i>Reversibility study in sign time series of the foreign exchange market</i> de Sousa, Arthur Matsuo Yamashita Rios (Tokyo Institute of Technology, Japan)</p> <p><i>Trend prediction model based on linear differential equations</i> de Magalhães, Arthur R. Bosco (Centro Federal de Educação Tecnológica de Minas Gerais, Brazil)</p> <p><i>Measuring the frequency dynamics of financial and macroeconomic connectedness</i> Křehlík, Tomáš (Czech Academy of Sciences, Czech Republic)</p>
16:40 – 18:00	Session D2: Market Microstructure I (Room 206)

	<p><i>An analysis of price impact functions of individual trades on the London Stock Exchange</i> Wilinski, Mateusz (University of Warsaw, Poland)</p> <p><i>Stochastic order book model with feedback effects</i> Yamada, Kenta (University of Tokyo, Japan)</p> <p><i>A mini-crash caused by exogenous effects in the Brazilian Stock Exchange</i> Sandoval Junior, Leonidas (Insper Instituto de Ensino e Pesquisa, Brazil)</p>
16:40 – 18:00	<p>Session D3: Income & Wealth (Room 314)</p> <p><i>Some models for the distribution of wealth</i> López-Ruiz, Ricardo (University of Zaragoza, Spain)</p> <p><i>Inequality and the financial accumulation process: A computational economic analysis of income and wealth dynamics</i> Biondi, Yuri (CNRS – ESCP Europe)</p> <p><i>Modeling the origin and possible control of the wealth inequality surge</i> Berman, Yonatan (Tel Aviv University, Israel)</p> <p><i>Dynamics of the richness distribution from a behavioral finance model through a complex network</i> Meira, Fischer Stefan (Centro Federal de Educacao Tecnologica de Minas Gerais, Brazil)</p>
19:00 – 22:00	Welcome reception (Epopey Restaurant)

Tuesday 15 th September 2015	
9:00 – 18:00	Registration
9:00 – 10:30	Session E: Invited speakers (Room 109) <i>Predicting and measuring human behaviour with Internet data</i> Moat, Suzy (Warwick Business School, United Kingdom) <i>A network analysis of the Chinese venture capital market</i> Li, Sai-Ping (Academia Sinica, Taiwan) <i>Kinetics of social contagion</i> Kertesz, Janos (Budapest University of Technology and Economics)
10:30 – 11:00	Coffee break
11:00 – 12:40	Session F1: Financial Networks (Room 109) <i>Peer pressure and the diffusion of biased information in financial markets: A complex network perspective</i> Shen, Dehua (Universitat Jaume I, Spain) <i>Stability and Hierarchy of Quasi-Stationary States: Financial Markets as an Example</i> Stepanov, Yuriy (University of Duisburg-Essen, Germany) <i>Financial networks based on theory of information transfer</i> Song, Jae Wook (Seoul National University, Korea) <i>Strength of cross-correlations in crisis: Evolving network analysis</i> Miśkiewicz, Janusz (University of Warsaw, Poland) <i>Is there any connection between the network morphology and the fluctuations of the stock market index?</i> Atman, Allbens (CEFET-MG & National Institute of Science and Technology – Complex Systems, Brazil)
11:00 – 12:40	Session F2: Networks & Complex Systems II (Room 206) <i>Using k-nearest neighbor method to estimate real estate prices</i> Ohnishi, Takaaki (University of Tokyo, Japan) <i>Dynamics of communities on multiplex synchronization network</i> Sakamoto, Yohei (Kyoto University, Japan) <i>Temporal evolution of patent network formation</i> Tsouchnika, Maria (Aristotle University of Thessaloniki, Greece) <i>Bimodality testing of stochastic cusp model</i> Voříšek, Jan (Czech Academy of Sciences, Czech Republic) <i>Exposing basin structures embedded in a complex network</i> Tamura, Koutarou (Tokyo Institute of Technology, Japan)
11:00 – 12:40	Session F3: Miscellaneous (Room 314) <i>Non-linear Polya urn and Information cascade experiments</i> Mori, Shintaro (Kitasato University, Japan) <i>Estimation of zero intelligence models by L1 data</i> Šmíd, Martin (Czech Academy of Sciences, Czech Republic) <i>Creations, distributions, and consumptions centered around individuals in media-content fields</i> Kato, Ayako (Bunkyo University, Japan) <i>Efficient counterparty risk calculation by quantization techniques</i> Bonollo, Michele (Iason Ltd & IMT Lucca, Italy) <i>A mean field approach to the emergence of cooperation in evolutionary games</i> Javarone, Marco Alberto (University of Cagliari, Italy)

12:40 – 14:10	Lunch
14:10 – 16:10	<p>Session G: Invited speakers (Room 109)</p> <p>Coupled network approach to predictability of financial market returns and news sentiment Vodenska, Irena (Boston University, USA)</p> <p><i>Alternative measure of multifractal phenomena in non-stationary data with application to finance</i> Grech, Dariusz (University of Wroclaw, Poland)</p> <p><i>Fluctuation-dissipation relations derived from high-quality order-book data of foreign exchange market</i> Zhou, Wei-Xing (East China University of Science and Technology, China)</p> <p><i>Detrended fluctuation analysis as a regression framework</i> Kristoufek, Ladislav (Charles University in Prague & Czech Academy of Sciences, Czech Republic)</p>
16:10 – 16:40	Coffee break
16:40 – 18:20	<p>Session H1: Financial Markets II (Room 109)</p> <p><i>The effect of support and resistance levels breaking for the currency pairs prices</i> Szmagliński, Adam (Cracow University of Technology, Poland)</p> <p><i>Asymmetric multifractal scaling behavior in the Korean stock market using asymmetric multifractal detrending moving average analysis</i> Lee, Minhyuk (Seoul National University, Korea)</p> <p><i>Optimal conditions for strategies of pricing model in the KOSPI and KOSDAQ markets</i> Kim, Kyungsik (Pukyong National University, Korea)</p> <p><i>Verifying liquidity risk using pairs trading strategy with preferred stocks</i> Lee, Changju (Seoul National University, Korea)</p> <p><i>Time-dependent momentum and contrarian effects in the Chinese stock market</i> Shi, Huai-Long (East China University of Science and Technology, China)</p>
16:40 – 18:20	<p>Session H2: Market Microstructure II (Room 206)</p> <p><i>Cancellation orders and market price movement in foreign currency market</i> Boillard, Jean-François (Tokyo Institute of Technology, Japan)</p> <p><i>From Walras' auctioneer to continuous time double auctions: A general dynamic theory of supply and demand</i> Donier, Jonathan (University Paris 6 - CFM, France)</p> <p><i>Strategic market making and its impact on liquidity in equity limit order books</i> Bonart, Julius (Imperial College London, United Kingdom)</p> <p><i>Utilizing kernel estimators for one-tick ahead price prediction</i> Gould, Martin (Imperial College London, United Kingdom)</p>
16:40 – 18:20	<p>Session H3: Financial Econometrics & Risk (Room 314)</p> <p><i>Risk diversification: A study of persistence with filtered correlation-networks</i> Musmeci, Nicolò (King's College London, United Kingdom)</p> <p><i>Escape problem under the term structure condition and stochastic volatility</i> Ko, Bonggyun (Seoul National University, Korea)</p> <p><i>The collective behavior of financial assets during the financial crisis revealed by partial correlation analysis</i> Jung, Sean (Seoul National University, Korea)</p> <p><i>Source and estimation of multifractality</i> Buonocore, Riccardo Junior (King's College London, United Kingdom)</p> <p><i>Semiparametric nonlinear quantile regression model for financial returns</i> Avdulaj, Krenar (Charles University in Prague, Czech Republic)</p>
20:00 – 22:00	Dinner cruise

Wednesday 16 th September 2015	
9:00 – 12:00	Registration
9:00 – 10:30	Session I: Invited speakers (Room 109) <i>Systemic risk elimination in financial multiplex networks</i> Thurner, Stefan (Medical University of Vienna, Austria) <i>As time goes by – using random matrices to analyze time-dependent phenomena in econophysics and elsewhere</i> Kuehn, Reimer (King's College London, United Kingdom) <i>Quantile coherency: A new measure of dependence for economic variables</i> Barunik, Jozef (Charles University in Prague & Czech Academy of Sciences, Czech Republic)
10:30 – 11:00	Coffee break
11:00 – 12:20	Session J1: Financial Markets III (Room 109) <i>Modeling foreign exchange market activity around macroeconomic news: Hawkes-process approach</i> Rambaldi, Marcello (Scuola Normale Superiore, Italy) <i>Multi-time correlation analysis of financial returns moments</i> Hernandez-Montoya, A. Raul (University of Veracruz, Mexico) <i>Bin size independence in intra-day seasonalities for relative prices</i> Guevara, Esteban (Université Paris Diderot 7, France) <i>Extension and validation of the multi-state asymmetric ACD models</i> Bień-Barkowska, Katarzyna (Warsaw School of Economics, Poland)
11:00 – 12:20	Session J2: Online data (Room 206) <i>Quantifying crowd size with mobile phone and Twitter data</i> Botta, Federico (Warwick Business School, United Kingdom) <i>Global financial indices and Twitter sentiment analysis: A random matrix study</i> García, Andrés (Sonora University, Mexico) <i>Quantifying the relationship between financial news and the stock market</i> Alanyali, Merve (Warwick Business School)
11:00 – 12:20	Session J3: Options (Room 314) <i>Overlapping multigrid method as a fast solver of the two-dimensional Black-Scholes model</i> Bernardelli, Michał (Warsaw School of Economics, Poland) <i>Fast numerical pricing of barrier options under stochastic volatility and jumps</i> Sanfelici, Simona (University of Parma, Italy) <i>Spitzer identity, Wiener-Hopf factorization and pricing of discretely monitored exotic options</i> Germano, Guido (London School of Economics & University College London, United Kingdom) <i>Option Pricing Beyond Black-Scholes Based on Double-Fractional Diffusion</i> Korbel, Jan (Czech Technical University, Czech Republic)
12:20 – 14:00	Lunch
14:00 – 15:30	Session K: Invited speakers (Room 109) <i>Bubbles in housing markets: A comparison between Singapore and Taiwan</i> Cheong, Siew Ann (Nanyang Technological University, Singapore) <i>Complex network analysis on research activity of public research institution</i> Jung, Woo-Sung (POSTECH, Korea) <i>(Skype talk)</i> Stanley, H. Eugene (Boston University)
15:30	Closing