



Deliverable D5.5

**MSCA-ITN Training for Big Data in Financial Research and Risk Management
“BigDataFinance”**

Grant Agreement: 675044

This is Deliverable 5.5 of the Work Package 5 (WP5) in “Training for Big Data in Financial Research and Risk Management” (BigDataFinance) Innovative Training Network Marie Skłodowska-Curie project 2015-2019.

Name of the deliverable: Conference: Big Data in Finance

Date, place: 4th – 5th October, London School of Economics, Bankside house

Description: Big Data in Finance Conference organized at London School of Economics of on 4th and 5th of October. Participants of the conference consisted of 26 project consortium members, 7 external participants, 4 invited guests and 17 external speakers all together 54 participants. All Early Stage Research of BigDataFinance project attended the event. Conference presentations are uploaded to project website <http://bigdatafinance.eu/events/bigdatafinance-conference/programme/> with permission from speakers.

Photos of the BigDataFinance Conference were regularly shared through project’s twitter account during both conference days: <https://twitter.com/BigDataITN>

Attachments:

1. Programme
2. Conference Speaker Biographies
3. Participant list

Name, position

Juho Kanninen, Professor

Coordinator of BigDataFinance

BigDataFinance Conference | Programme October 4th 2017

Keynote talks in *italic*

		SPEAKER	INSTITUTION	TITLE
09:30 AM	10:00 AM	Registration and coffee		
10:00 AM	10:45 AM	Prof. Kim Christensen	Aarhus University/Creates	The drift burst hypothesis
<i>10:45 AM</i>	<i>11:45 AM</i>	<i>Prof. Kevin Sheppard</i>	<i>University of Oxford</i>	<i>Estimating Vast Dimensional Covariance Models</i>
11:45 AM	12:15 PM	Peter Hafez, Chief Data Scientist	Ravenpack	A Multi-Topic Approach To Building Quant Models
12:15 PM	01:15 PM	Lunch Break		
<i>01:15 PM</i>	<i>02:15 PM</i>	<i>Prof. Thierry Foucault</i>	<i>HEC</i>	<i>Data Abundance and Asset Price Informativeness</i>
<i>02:15 PM</i>	<i>02:45 PM</i>	Dan Seal Senior Engineer	KX	Design considerations for Enterprise Data Infrastructure in Financial Institutions
02:45 PM	03:15 PM	Coffee Break		
<i>03:15 PM</i>	<i>04:15 PM</i>	<i>Prof. Andreas Hoepner</i>	<i>University College Dublin</i>	<i>Financial Data Science, Big Data and Deep Data in Asset Pricing</i>
04:15 PM	04:45 PM	Thomas Raffinot, Managing Partner	Millesime	Investing Through Economic Cycles with Ensemble Machine Learning Algorithm
04:45 PM	05:15 PM	Christina Erlwein-Sayer, Senior Quantitative Analyst and Researcher	OptiRisk Systems	Sentiment Analysis for Credit Risk and Portfolio Construction

BigDataFinance Conference | Programme October 5th 2017

Keynote talks in *italic*

		SPEAKER	INSTITUTION	TITLE
09:15 AM	09:45 AM	Kimmo Soramäki, CEO	Financial Network Analytics (FNA)	Industrial Applications of Network Theory
09:45 AM	10:45 AM	<i>Prof. Albert Menkveld</i>	<i>VU University Amsterdam</i>	<i>A Network Map of Information Percolation</i>
10:45 AM	11:15 AM	Coffee Break		
11:15 AM	12:15 PM	<i>Prof. Fabrizio Lillo</i>	<i>University of Bologna</i>	<i>Financial networks and risk</i>
12:15 PM	01:00 PM	Prof. Tomaso Aste	University College London	Predictive modelling with information filtering networks
01:00 PM	02:00 PM	Lunch Break		
02:00 PM	03:00 PM	<i>Prof. Stephen Roberts</i>	<i>University of Oxford</i>	<i>The Bayesian Crowd: scalable information combination for Citizen Science and Crowdsourcing</i>
03:00 PM	03:30 PM	Prof. Alexandros Iosifidis	Aarhus University	Machine learning approaches for high-frequency financial data analysis
03:30 PM	04:00 PM	Coffee Break		
04:00 PM	04:45 PM	<i>Adrian Poole, Head of Financial Services</i>	<i>Google</i>	<i>Big Data & Rocket Fuel</i>
		<i>Raj Subramani, Compute Innovations</i>	<i>HSBC</i>	
04:45 PM	05:15 PM	Prof. Peter Sarlin	Hanken University / RiskLab Finland	Bank distress in the news: Describing events through deep learning

Professor Kim Christensen

Aarhus University



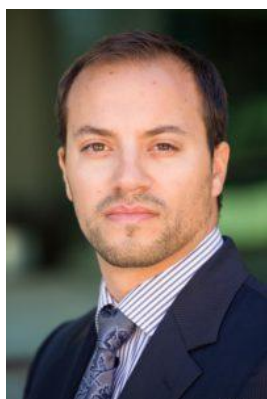
Kim Christensen acquired his PhD from Aarhus School of Business, Aarhus University in 2007. His research interests include financial econometrics, particularly the modelling of financial markets volatility using high-frequency data (intraday transaction and quotation data). He has published his work in a number of leading field journals, including *Journal of Econometrics* and *Journal of Financial Economics*. He has previously held a position as an inflation-linked derivatives trader in Nordea, Copenhagen. He is the 2011 winner of the Golden Pointer (Lecturer of the year prize awarded for teaching excellence) based on his lecture series in Statistics.

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Peter Hafez

Chief Data Scientist

Ravenpack



Peter Hafez is the head of data science at RavenPack. Since joining RavenPack in 2008, he's been a pioneer in the field of applied news analytics bringing alternative data insights to the world's top banks and hedge funds. Peter has more than 15 years of experience in quantitative finance with companies such as Standard & Poor's, Credit Suisse First Boston, and Saxo Bank.

He holds a Master's degree in Quantitative Finance from Sir John Cass Business School along with an undergraduate degree in Economics from Copenhagen University. Peter is a recognized speaker at quant finance conferences on alternative data and AI, and has given lectures at some of the world's top



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academic institutions including London Business School, Courant Institute of Mathematics at NYU, and Imperial College London.

RavenPack is the leading big data analytics provider for financial services. Financial professionals rely on RavenPack for its speed and accuracy in analyzing large amounts of unstructured content. The company's products allow clients to enhance returns, reduce risk and increase efficiency by systematically incorporating the effects of public information in their models or workflows. RavenPack's clients include the most successful hedge funds, banks, and asset managers in the world.

Visit www.ravenpack.com

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Professor Thierry Foucault

HEC



Thierry Foucault is HEC Foundation chaired Professor of Finance at HEC, Paris and a research fellow of the Centre for Economic Policy (CEPR). He has taught in various institutions, including Universitat Pompeu Fabra, Carnegie Mellon University, EPFL, Studienzentrum Gerzensee, Saïd Business School in Oxford, and the Tinbergen Institute. His research focuses on the determinants of financial markets liquidity, the industrial organization of these markets, and their effect on the real economy and has been published in *Journal of Finance*, *Journal of Financial Economics* and *Review of Financial Studies*, *Management Science*, *Rand Journal of Economics* etc.

He serves or served on the scientific committees of the Autorité des Marchés Financiers (AMF), the Norwegian Finance Initiative (NFI), the Research Foundation of the Banque de France, the Group of Economic Advisors of the Committee of Economic and Markets Analysis of the European Securities and Markets Authority (ESMA). He is currently an Editor of the *Review of Asset Pricing Studies*, and an Associate Editor of the *Journal of Economic Theory*, *Journal of Finance*, and *The Review of Financial Studies*. He was co-editor of the *Review of Finance* from 2009 to 2013. He co-authored, with Marco Pagano and Ailsa Röell, "*Market Liquidity: Theory, Evidence, and Policy*", a textbook on market liquidity published by Oxford University Press in 2013.

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Dan Seal

Senior Engineer

Kx



Dan Seal is a senior engineer and lead product developer for Kx's Data-as-a-Service infrastructure platform. Dan has been designing and implementing complex enterprise applications for securities trading at global financial institutions for 12 years. He joined Kx after eight years with Deutsche Bank where he was a senior engineer and data architect. Prior to that he worked at Merrill Lynch.

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Professor Albert Menkveld

VU University Amsterdam



Albert Menkveld is Professor of Finance at VU University Amsterdam and Fellow at the Tinbergen Institute. In 2002, he received a Tinbergen PhD from Erasmus University Rotterdam. He was on visiting positions for multiple years at various U.S. schools (NYU, Wharton, and Stanford). Albert's research agenda is focused on securities trading, liquidity, asset pricing, and financial econometrics. He has published in various journals, for example, the *Journal of Finance*, the *Journal of Financial Economics*, and the *Review of Financial Studies*.

In 2010 he received a five-year VIDI grant from the Netherlands Organization for Scientific Research (NWO), in 2007 the Pierson medal ('Dutch Bates Clark') from the Royal Dutch Economic Association, in 2003 a Lamfalussy scholarship from the European Central Bank, and in 2001 the Josseph de la Vega Prize from the Federation of European Exchanges. Albert is currently an Associate Editor at the *Review of Asset Pricing Studies* and a Research Fellow at the Centre for Economic Policy Research (CEPR). He was a member of the European Finance Association (EFA) Executive Committee in 2014-2016, Group of Economic Advisors of the European Securities and Market Authority (ESMA) in 2011-2014, and a member of the academic council of the Autorité des Marchés Financiers ("French SEC") since 2004-2016. Photo © StudioVU/Riechelle van der Valk, Text © Albert Menkveld



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Thomas Raffinot

Managing partner

Millesime



Thomas Raffinot is the Co-Founder and Managing Partner at Millesime IS and a lecturer at the Université Paris Dauphine. He has more than 15 years of experience in the asset management industry, both as a strategist and economist (CPR AM, BNPP). He focuses on research and tactical and strategic asset allocation to translate macroeconomic and policy factors into tailored investment strategies. He writes extensively on monetary policy, asset allocation issues, investment opportunities and risks. He obtained his PhD in economics at the Université Paris Dauphine.

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Dr. Christina Erlwein-Sayer

Senior Analyst and Financial Engineer

OptiRisk Systems



Christina Erlwein-Sayer is senior quantitative analyst and researcher at OptiRisk Systems working on the topic of financial analytics in general and models and tools for portfolio construction and credit risk assessment in particular. Her main research interest lies in regime-switching models for finance. Dr Erlwein-Sayer completed her PhD in Mathematics at Brunel University, London in 2008. She then worked as a researcher and consultant in the Financial Mathematics Department at Fraunhofer ITWM, Kaiserslautern, Germany before starting her role at OptiRisk in 2015. Dr Erlwein-Sayer is an experienced presenter at workshops and is fluent in German (her native language) and in English.

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Professor Andreas Hoepner

University College Dublin



Dr. Andreas G. F. Hoepner is Full Professor of Operational Risk, Banking & Finance at University College Dublin. He is heading the 'Practical Tools' research group of the Mistra Financial Systems (MFS) research consortium and is visiting Professor in Financial Data Science at the University of Hamburg. Dr. Hoepner serves as a board member of the Financial Data Science Association and educates investment professional in financial data science as

Scientific Co-Director of the Certificate in Financial Data Science of the German Investment Analysts Association (DVFA). He is also serving on independent assessment committees for the Investment & Pensions Europe (IPE) Awards (Categories: Climate Change Risk, ESG, Smart Beta), the Investment Innovation Benchmark (IIB), and the RI Awards. He sits on advisory boards for Bank J. Safra Sarasin (with former PRI chair Engshuber), the Carbon Disclosure Project (CDP), the Deep Data Delivery Standards (www.DeepData.ai), the French Social Investment Forum (FIR) and the Future World Fund (with Lord Stern).

Dr. Hoepner's financial data science research has made him the sole inventor of a US patent titled 'Investment Performance Measurement' (No. US8751357 B1). He also won several awards including a 2015 PRI/Sycomore Best Quantitative Paper, a 2012 Academy of Management Best Paper Proceeding, a 2010 PRI Academic Research Award, and 2011 and 2012 PRI/FIR Research Grant Awards. He publishes interdisciplinary in journals such as Accounting, Auditing & Accountability, Ecological Economics, Environment & Planning C, European Journal of Finance, Journal of Business Ethics and Journal of Business Finance & Accounting. He is co-editor of the Cambridge Handbook of Institutional Investment and Fiduciary Duty (foreword by Al Gore) and the Routledge Handbook of Responsible Investment. More generally, Dr. Hoepner's research earned him, aged 33, an invitation to serve as a Fellow of the Royal Society of Arts in 2015 for "exceptional contributions to the study of finance, particularly ... responsible investment".

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Kimmo Soramäki

CEO

Financial Network Analytics (FNA)



Kimmo Soramäki is the Founder and CEO of Financial Network Analytics (FNA) and the founding Editor-in-Chief of the Journal of Network Theory in Finance. Kimmo started his career as an economist at the Bank of Finland where he developed in 1997 the first simulation model for interbank payment systems. In 2004 while at the research department of the Federal Reserve Bank of New York, he was among the first to apply methods from network theory to improve our understanding of financial systems. During the financial crisis of 2007-2008 Kimmo advised several central banks, including the Bank of England and European Central Bank, in modeling interconnections and systemic risk. This work led him to found FNA in 2013 provide solutions to monitor the complex financial networks that play a continually larger role in the world around us. Kimmo holds a Doctor of Science in Operations Research and a Master of Science in Economics (Finance), both from Aalto University in Helsinki.

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Professor Fabrizio Lillo

Univeristy of Bologna



Fabrizio Lillo is Full Professor of Mathematical Methods for Economics and Finance at the University of Bologna (Italy). Until May 2017 he was Associate Professor of Mathematical Finance at the Scuola Normale Superiore di Pisa (Italy) where he lead the Quantitative Finance group. He holds a master and a PhD in Physics at the University of Palermo (Italy). Formerly he has been researcher of the National Institute of the Physics of Matter, assistant professor at the University of Palermo, and Professor at the Santa Fe Institute (USA). He has been awarded the Young Scientist Award for Socio- and Econophysics of the German Physical Society in 2007.



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He is member of the editorial board of several quantitative finance and statistical physics journals and has been unit leader of several European projects. Currently he is one of the partners of the H2020 project SoBigData (www.sobigdata.eu) building a research infrastructure on Big Data in social and economic sciences. His research interests include high frequency finance and market microstructure, financial networks, systemic risk, and Big Data applied to economics and finance. He is author of more than 85 referred scientific papers in quantitative finance, physics, and complex systems and, according to Google Scholar, his publications received more than 5,500 citation with an h-index of 37 (<https://fabriziolillo.wordpress.com>).

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Professor Tomaso Aste

University College London



Tomaso Aste is professor of complexity science at UCL Computer Science Department. A trained Physicist, has substantially contributed to research in financial systems modeling and complex data analytics. His research activity concerns predictive analytics by using network theoretic and statistical physics tools. He is passionate in the application of Blockchain Technologies to domains beyond digital currencies. He is Scientific Director of the UCL Centre for Blockchain Technologies; Head of the Financial Computing and Analytics Group; Programme Director of the MSc in Financial Risk Management; Vice-Director of the Centre for doctoral Training in Financial Computing & Analytics; Member of the Board of the ESRC LSE-UCL Systemic Risk Centre. Prior to UCL he held positions in UK and Australia. He is consulting for financial institutions, banks and digital-economy startups.

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Professor Stephen Roberts, FEng

University of Oxford



Stephen Roberts is the RAEng/Man Professor of Machine Learning at the University of Oxford. He is a Fellow of the Royal Academy of Engineering, the Royal Statistical Society, the Institute of Physics and is a Faculty Fellow of the Alan Turing Institute. Stephen is Director of the Oxford-Man Institute of Quantitative Finance, co-Director of the Oxford Centre for Doctoral Training in Autonomous Intelligent Machines and Systems (AIMS) and co-founder of the University

Machine Learning spin-out company, Mind Foundry. He has published widely, having some 300 publications which have accrued 18,000 citations.

Stephen's interests lie in methods for machine learning & data analysis in complex problems, especially those in which noise and uncertainty abound. His current major interests include the application of machine learning to huge astrophysical data sets (for discovering exoplanets, pulsars and cosmological models), biodiversity monitoring (for detecting changes in ecology and spread of disease), smart networks (for reducing energy consumption and impact), sensor networks (to better acquire and model complex events) and finance (to provide better insight into timeseries and aggregate large numbers of unstructured information streams).

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Professor Alexandros Iosifidis

Aarhus University



Alexandros Iosifidis received the Diploma in Electrical and Computer Engineering and the M.Eng. degrees in Mechatronics from the Democritus University of Thrace, Greece in 2008 and 2010, respectively. He received the Ph.D. in Informatics from the Aristotle University of Thessaloniki, Greece in 2014. In 2015, he joined the Multimedia Research Group of the Department of Signal Processing in Tampere University of Technology. He was recipient of the two-year Post-Doctoral Fellowship Award given by TUT Foundation to five Post-Doctoral Researchers in all scientific fields in 2015. In 2016, he received the prestigious Academy of Finland Postdoctoral Research Fellowship. He has participated in

several research projects funded by EU, Greek, and Finnish funding agencies and he is currently



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-serving as an active member of the NSF I/UCRC Center for Visual and Decision Informatics as a member of the TUT-Site.

Dr. Iosifidis has recently joined the Department of Engineering, Electrical and Computer Engineering, in Aarhus University as an Assistant Professor. His current research interests include computational intelligence and machine learning, with applications mainly in images/videos and times series data. He has co-authored more than 100 papers in top international journals and conferences in the areas of his expertise. Dr. Iosifidis is a Senior member of IEEE, member of EURASIP and alumni of the Finnish Academy of Science and Letters.

Website: <http://www.cs.tut.fi/~iosifidi/>

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Adrian Poole

Head of Google Cloud Platform Financial Services, UKI

Google Cloud



Adrian has 20 years experience working in the Financial Services Industry. Prior to Google, Adrian worked for management consultancy Grant Thornton in areas of regulatory redress, financial crime and cost take out initiatives. Adrian's early career was formed at IBM where he ran their Financial Markets business. Adrian is a qualified accountant and received his BSc in Natural Science from Durham University. Adrian is married with three children and lives in Berkshire, UK.

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Raj Subramani

Compute Innovation, Global Banking & Markets

HSBC

Raj has over 20 years experience in Investment Banking. Before joining HSBC, Raj worked for the Interest Rates business at J P Morgan. He has also worked at Deutsche Bank and Citibank in previous roles. Raj has a PhD in Engineering from the University of Newcastle upon Tyne. He also holds a Certificate in Quantitative Finance from the CQF Institute in London.

© Raj Subramani

Professor Peter Sarlin

Hanken School of Economics | Director of RiskLab Finland



Peter is an Associate Professor of Economics at Hanken School of Economics (Helsinki, Finland), and Director of RiskLab Finland. He is an organizer of the Annual RiskLab/BoF/ESRB Systemic Risk Analytics Conference and Europe's 1st Fintech Master's program. He is also a research associate with the Systemic Risk Center at London School of Economics, IWH Halle Institute for Economic Research and the Systemic Risk Hub, as well as a board member of the IEEE Analytics and Risk Technical Committee and the IEEE Computational Finance and Economics Technical Committee. Moreover, he is an Associate Editor of Journal of Network Theory in Finance and Intelligent Systems in Accounting, Finance & Management. Peter completed his PhD(Econ) in 2013 at Turku Centre for Computer Science, and has also studied at London School of Economics, Stockholm School of Economics and Stockholm University. He has been a Financial Stability Expert and external consultant among others with the European Central Bank, Bank of Finland, Deutsche Bundesbank, De Nederlandsche Bank and Bank of Indonesia. He is a founder of Infolytika Ventures and Almax Analytics. Peter's book Mapping Financial Stability was published by Springer in May 2014 and his current research interests include network analytics, machine learning, natural-language processing and visual analytics.

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