

# STOR-i Conference: 9<sup>th</sup> – 10<sup>th</sup> January 2020

## Speaker Biographies

### Day 1

#### **Alex Jacquillat, MIT**

Alexandre Jacquillat is an Assistant Professor of Operations Research and Statistics at the MIT Sloan School of Management. His research focuses on data-driven decision-making, spanning stochastic optimization, large-scale optimization, mechanism design and field experimentation. His primary application area lies in transportation systems, with the objective of promoting more efficient scheduling, operations and pricing practices. Alexandre is the recipient of several research awards, including the George B. Dantzig Dissertation Award and the Best Paper Prize in Transportation Science and Logistics from INFORMS.

#### **Henry Moss, STOR-i PhD Student**

I am a third year PhD student at Lancaster University, supervised by David Leslie (Department of Mathematics and Statistics) and Paul Rayson (School of Computing and Communications). My research interests lie at the intersection of Statistics and Machine Learning, focusing mainly on Bayesian optimization. I leverage information-theoretic arguments to provide efficient and reliable hyper-parameter tuning for machine learning systems. My favorite application is natural language processing (NLP) - where systems can take days (if not weeks!) to train and consequently pose particular interesting tuning problems. I have just finished an internship at Amazon Alexa, where I applied Bayesian optimization within their text-to-speech pipelines.

#### **Valeria Vitelli, University of Oslo**

Valeria Vitelli is associate professor at the Department of Biostatistics, which is part of the Oslo Center for Biostatistics and Epidemiology, at the University of Oslo (Norway). She holds a PhD in statistics (2012) from Politecnico di Milano, the top-ranked technical university in Italy. She was a postdoc at École Centrale Paris for a year, within the Chair on Systems Science and the Energetic Challenge, a research group funded by Électricité de France working on big data problems in the energy sector. In mid-2013 she moved to the University of Oslo, where after a 4 years postdoc grant from the Norwegian Cancer Society, she became associate professor in biostatistics in September 2018. Her experience spans over three countries, and over several areas of mathematics and statistics, including functional data analysis with applications in physiology and biostatistics, machine learning for describing people mobility, and finally statistical genomics of cancer and high-dimensional data models.

#### **Miguel Anjos, University of Edinburgh**

Miguel F. Anjos holds the Chair of Operational Research at the School of Mathematics, University of Edinburgh, and an Inria International Chair on Power Peak Minimization for the Smart Grid. He received the B.Sc. degree from McGill University, the M.S. from Stanford University, and the Ph.D. degree from the University of Waterloo. His research interests are in the theory, algorithms and applications of mathematical optimization. He is particularly interested in the application of optimization to problems in power systems management and smart grid design. He is the Founding Academic Director of the Trottier Institute for Energy at Polytechnique, and President-Elect of the INFORMS Section on Energy, Natural Resources, and the Environment. Previous professional service elected positions include three-year terms on the Council of the Mathematical Optimization Society and as Program Director for the SIAM Activity Group on Optimization, and to a two-year term as Vice-Chair of the INFORMS Optimization

Society. He served on the Mitacs Research Council since its creation in 2011 until 2017, and is now an Emeritus member. His accolades include IEEE Senior Membership, a Canada Research Chair, an NSERC-Hydro-Quebec-Schneider Electric Industrial Research Chair, the Méritas Teaching Award, a Humboldt Research Fellowship, the title of EUROPT Fellow, and the Queen Elizabeth II Diamond Jubilee Medal. He is a Fellow of the Canadian Academy of Engineering.

**Georgia Souli, STOR-i PhD Student**

Georgia Souli is a 3rd year STOR-i PhD student. Before joining STOR-i, she studied Mathematics at the University of Patras in Greece. She was a member of the teams that represented University of Patras in the 7th and the 8th SEEMOUS (South Eastern European Mathematical Olympiad for University Students), and was awarded with two bronze medals. She joined STOR-i in 2016 and is currently doing a PhD in Optimisation, supervised by Professor Adam Letchford. So far, she has developed three procedures for generating valid linear inequalities. These are linear inequalities that can be added to optimisation problems to reduce the required solution time and improve solvers' performance. She is also currently working on a variety of large-scale optimization problems with Dr. Alex Armstrong at Morgan Stanley.

**Richard Davis, Columbia University**

Richard Davis is the Howard Levene Professor of Statistics at Columbia University and former chair of the Statistics Department (2013-19). He received his Ph.D. degree in Mathematics from the University of California at San Diego in 1979 and has held academic positions at MIT, Colorado State University, and visiting appointments at numerous other universities. He was Hans Fischer Senior Fellow at the Technical University of Munich (2009-12), Villum Kan Rasmussen Visiting Professor (2011-13) at the University of Copenhagen, and Jubilee Professor at Chalmers University. Davis is a fellow of the Institute of Mathematical Statistics and the American Statistical Association, and is an elected member of the International Statistical Institute. He was president of IMS in 2015-16 and Editor-in-Chief of Bernoulli Journal 2010-12. He is co-author (with Peter Brockwell) of the best-selling books, Time Series: Theory and Methods, Introduction to Time Series and Forecasting, and the time series analysis computer software package, ITSM2000. Together with Torben Andersen, Jens-Peter Kreiss, and Thomas Mikosch, he co-edited the Handbook in Financial Time Series and with Holan, Lund, and Ravishanker, the book, Handbook of Discrete-Valued Time Series. In 1998, he won (with collaborator W.T.M Dunsmuir) the Koopmans Prize for Econometric Theory. He has advised/co-advised 34 PhD students and has delivered numerous short courses on time series and heavy-tailed modeling. His research interests include time series, applied probability, extreme value theory, and spatial-temporal modeling.

**Tom Flowerdew, STOR-i Alumni**

Tom moved from a career in Systems Engineering into the second cohort of STOR-i students in 2011, completing his PhD in "Methods for the Identification and Optimal Exploitation of Profitable Betting Scenarios" (funded by ATASS Sports) in 2015, supervised by Prof Kevin Glazebrook, Dr Chris Kirkbride, and Prof Jon Tawn. Since leaving Lancaster, Tom has been working at Featurespace, the world-leader in Adaptive Behavioural Analytics, an approach to Machine Learning which allows models to be deployed into dynamic, real-time settings, without performance degradation occurring. In 2018, Tom moved to Atlanta, Georgia, to set up the Data Science function in North America and to lead the delivery of models to some of the world's largest Financial Services companies. Tom returned to Cambridge in December 2019 to develop new delivery teams, and ML technology in the UK

**Christine Currie, University of Southampton**

Christine Currie is Associate Professor of Operational Research in Mathematical Sciences and Director CORMSIS, the Centre for Operational Research, Management Science and Information Systems at the University of Southampton, UK. She is Editor-in-Chief for the Journal of Simulation and her research interests include simulation optimisation,

mathematical modelling of epidemics, optimal pricing and applications of simulation in health care. See <http://www.southampton.ac.uk/maths/about/staff/ccurrie.page> for more details.

## Day 2

### **Veronica Vinciotti, Brunel University**

Veronica Vinciotti is a reader in statistics at Brunel University London. Her main research interest is in the development of statistical models for network science. In particular, she has worked extensively on graphical modelling approaches for network inference from high-dimensional data, such as in biology and finance. She is currently involved in the coordination of the COST Action COSTNET (2016-20), promoting research collaborations and networking activities across Europe on the theme of statistical network science.

### **Dolores Romero Morales, Copenhagen Business School**

Dolores Romero Morales is a Professor in Operations Research at Copenhagen Business School. Her areas of expertise include Supply Chain Optimization, Data Mining and Revenue Management. In Supply Chain Optimization she works on environmental issues and robustness. In Data Mining she investigates interpretability and visualization. In Revenue Management she works on large-scale network models. Her work has appeared in a variety of leading scholarly journals, including European Journal of Operational Research, Management Science, Mathematical Programming and Operations Research, and has received various distinctions. Currently, she is an Associate Editor of Omega and TOP. She has worked with and advised various companies on these topics, including IBM, SAS, KLM and Radisson Edwardian Hotels, as a result of which these companies managed to improve some of their practices. SAS named her an Honorary SAS Fellow and member of the SAS Academic Advisory Board. She currently leads the EU H2020-MSCA-RISE NeEDS project, which has a total of 14 participants and a budget of more than €1.000.000 for intersectoral and international mobility, with the aim to improve the state of the art in Data Driven Decision Making. Dolores joined Copenhagen Business School in 2014. Prior to coming to Copenhagen Business School she was a Full Professor at University of Oxford (2003-2014) and an Assistant Professor at Maastricht University (2000-2003). She has a BSc and an MSc in Mathematics from Universidad de Sevilla and a PhD in Operations Research from Erasmus University Rotterdam.

### **Ciara Pike-Burke, STOR-i Alumni**

Ciara Pike-Burke is a postdoctoral researcher at Universitat Pompeu Fabra (Barcelona) working with Gabor Lugosi and Gergely Neu. Prior to that she completed her PhD at STOR-i, Lancaster University, entitled 'Sequential decision problems in online education'. Her research interests include, online learning, multi-armed bandits, and reinforcement learning.

### **Brendan Murphy, University College Dublin**

Brendan Murphy is Full Professor and Head of School in the School of Mathematics and Statistics at University College Dublin. He has research interests in clustering, classification and latent variable modeling. He is interested in applications from social sciences, food science, medicine and biology. He is currently Editor for Social Sciences and Government for the Annals of Applied Statistics. He has recently co-authored a research monograph on Model-Based Clustering and Classification.