



THE UNIVERSITY of EDINBURGH THE SCHOOL of MATHEMATICS

New Appointments – 2016/2017



Mehdi Aghabali - Post Doctoral Research Assistant

Mehdi is a post-doctoral researcher in the University of Edinburgh working with Agata Smoktunowicz. His PhD was awarded jointly from Sharif University of Technology and University of Zanjan. His research interests are non-commutative algebra (Division Rings) and algebraic combinatorics (Permanents, Factorization and Spectra of Graphs). Recently, Mehdi has also been interested in braces and probabilistic methods in ring theory.



Jonas Azzam - Lecturer

Jonas got his degree in mathematics from the University of Nebraska-Lincoln in 2006 and his PhD from UCLA in 2011. He then held postdoctoral positions at the University of Washington and at the Universitat Autònoma de Barcelona, as well as short fellowships at the Mathematical Sciences Research Institute and the Institute for Pure and Applied Mathematics. His area of research is geometric measure theory and the analysis of metric spaces, specifically the theory of rectifiability (or how to tell when sets can be parametrized by "almost" differentiable maps) and its applications.



Philip Breen - Post Doctoral Research Assistant

Phil grew up in the Republic of Ireland. He completed an undergraduate Mathematics degree and a PhD in Applied Mathematics at the University of Edinburgh. He then went on to work in various technical roles in the energy sector as well as the finance industry. His research interest relates to mathematical astronomy particularly the dynamical evolution of globular star clusters.



Miguel de Carvalho - Lecturer

Miguel was born in Lisbon, Portugal. He received a PhD in Mathematics with emphasis on Statistics from the Universidade Nova de Lisboa, and he was a post-doctoral fellow at EPFL---Swiss Federal Institute of Technology. Thereafter he moved to PUC Chile where he was appointed as an Assistant Professor and later as an Associate Professor of Applied Statistics. He is an applied mathematical statistician with a variety of interdisciplinary interests, including, inter alia, Biostatistics, Econometrics, and Statistics of Extremes. Beyond serving at the academy he is also a regular academic consultant of Banco de Portugal (Portuguese Central Bank). He is currently an Associate Editor of the Annals of Applied Statistics (IMS), and of Statistics and Public Policy (ASA).



Vanda de Carvalho - Lecturer

Vanda is Portuguese and obtained her BSc and MSc in Applied Mathematics at Universidade Nova de Lisboa, Portugal. She then received her PhD from the Universidade de Lisboa, Portugal. During her PhD studies she visited the Universidad de Santiago de Compostela, Spain, the University of South Carolina, USA, and the École Polytechnique Fédérale de Lausanne, Switzerland. After finishing her PhD studies, she was an Assistant Professor of Statistics at the Pontificia Universidad Católica de Chile. Her research interests are in Bayesian statistics, biostatistics, and computational statistics.



Chris Dent - Chancellor Fellow

Chris Dent grew up in Bury, South Lancashire. He read Mathematics at Peterhouse, Cambridge, before studying for his PhD in Theoretical Physics at Loughborough and spending four years as a Physics postdoc at Heriot-Watt and Marburg Universities. In 2005-6 he studied for the MSc in Operational Research at Edinburgh, and spent the subsequent ten years as a postdoc (Edinburgh and Durham Universities) and then academic (Durham) in energy systems modelling. His principle research interests lie in methodology for security of supply risk analysis and large scale techno-economic modelling in energy systems. His most prominent industrial work has been in assisting National Grid with design of the GB Electricity Capacity Assessment Study since 2011. In 2012 he won the IET Mike Sargeant Young Engineer Career Achievement Award, and has also won a Durham University Award for Excellent in Research Impact. When not doing research on the boundary between industrial mathematical and energy systems analysis, he enjoys playing the cello and hillwalking (in 2009 he became Munroist 4475).



Mahdi Doostmohammadi – Lecturer

Mahdi received his BSc & MSc degrees in applied mathematics from the University of Isfahan, Iran in 2004 and 2007, respectively and his PhD in operations research from the University of Aveiro, Portugal in 2014. Afterwards he moved to Glasgow and worked as a postdoctoral research associate in the Department of Management Sciences at the University of Strathclyde. Before joining the University of Edinburgh, he held a postdoctoral research position at the Department of Mechanical Engineering of the Instituto Superior Tecnico, University of Lisbon. His research interests lie primarily in mixed integer optimization, mathematical programming, polyhedral theory, mixed integer multi-objective optimization and their applications, in particular in production planning, transportation and inventory routing planning and metabolic engineering.



Gruff Edwards – Post Doctoral Research Assistant

Gruffudd is originally from Llanfairpwllgwyngyll on the Isle of Anglesey, Wales. He studied for a MSci in theoretical physics from Durham University and, after some years outside of academia, returned to gain a P.G. Diploma in renewable energy systems technology from Loughborough University and then a PhD in wind resource modelling from the University of Bath. He has conducted postdoctoral research on wind speed forecasting at Heriot-Watt University before returning to Durham University for research on the reliability contribution of electrical storage and renewable generation in sub-Saharan Africa.



Hamid Reza Feyzmahdavian – Post Doctoral Research Assistant

Hamid received his B.Sc. and M.Sc. degrees in Electrical Engineering from Sharif University of Technology, Tehran, Iran. In January 2016, he received his PhD degree in Automatic Control from KTH Royal Institute of Technology, Sweden. After defending his PhD, he was a visiting researcher at Stanford University for three months. He was the recipient for the Best Paper Award from the IEEE International Conference on Communications (ICC) in 2012. His research interests include distributed optimization, machine learning, positive systems, and time-delay systems.



Roberto Fringuelli - Post Doctoral Research Assistant

Roberto studied mathematics at the universities of Bologna and Rome, Italy. He received his Ph.D. from the University of Roma Tre in 2016. His research interests lie in algebraic geometry, especially principal bundles on algebraic curves and their moduli.



Richard Gratwick – University Teacher

Richard was born in Teesside and grew up in North Yorkshire. He read mathematics and philosophy at Magdalen College, Oxford, and completed a PhD in mathematics at the University of Warwick in 2011. He moved back to Oxford as a Research Associate at St John's College, then again moved to Warwick as a Research Fellow. His research interests lie in the calculus of variations, geometric measure theory, and real analysis, studying in particular the regularity of minimizers and the existence of singular minimizers. Away from mathematics he is a keen violinist.



Finn Lindgren – Chair of Statistics

Finn grew up in Sweden, where he carried out undergraduate studies in statistics, mathematics, computer science, and physics at Lund University, where he also completed a PhD in Mathematical Statistics in 2003. After his PhD, Finn held positions as Research Associate and Post-Doctoral Researcher in Lund and at the Norwegian University of Science and Technology in Trondheim. In 2012, he was appointed Reader in Statistics at the University of Bath. Finn's research is focused on computational methods for latent random field models in spatial statistics, with essential elements of Bayesian statistics, numerical scientific computing, and theory for stochastic processes, as well as practical applications in climate science, ecology, and other environmental sciences.



Diletta Martinelli – Post Doctoral Assistant

Diletta was born in Ferrara, Italy. She completed her undergraduate studies in Ferrara and Pavia before moving to Barcelona for her Master thesis. Diletta received her PhD from Imperial College London in 2016. Her mathematical interests are mainly in birational geometry and the Minimal Model Program. In particular she focuses on effectivity questions, positive characteristic methods and Calabi-Yau manifolds.



Alba Olivares-Nadal - Post Doctoral Research Assistant

Alba grew up in Seville, Spain. She completed her Bachelor's and Master's in Mathematics at the University of Seville, getting awarded the best academic record of her class. After two research placements at the London Business School, which ignited her interest in portfolio optimization, Alba obtained her PhD in Seville in 2016. Her research interest is in the use of optimization techniques merged with statistical concepts in order to enhance sparsity and robustness in problems that have traditionally fallen into the Operations Research or Statistics fields.



Brent Pym - Seggie Brown Research Fellow (Commencing January 2017)

Brent grew up in Canada, and completed his PhD in Mathematics at the University of Toronto in 2013. He spent six months as a Postdoctoral Fellow at McGill University before moving to the University of Oxford, where he was a Postdoctoral Research Assistant at the Mathematical Institute and a Junior Research Fellow at Jesus College. He joined the University of Edinburgh in January 2017. His research interests lie at the interface between geometry, algebra, and mathematical physics; they include Poisson brackets, deformation quantization, moduli spaces, singular differential equations, and divergent series.



Alice Rizzardo – EPSRC Post Doctoral Fellow

Alice received her Ph.D. from Columbia University in May 2012. She has since held postdoctoral positions at SISSA (Italy) and MSRI (USA) in addition to the University of Edinburgh. She is coming back to Edinburgh thanks to an EPSRC postdoctoral fellowship. Her current research involves understanding algebraic varieties through the lens of their derived category, using techniques ranging from homological algebra to representation theory and noncommutative geometry.



Dr Peter Samuelson – Post Doctoral Research Assistant

Peter was an undergraduate at Caltech, where he studied mathematics. He received his PhD from Cornell under Yuri Berest in 2012, and has had postdoc/visiting positions at UToronto and Ulowa. His main mathematical interests are connections between representation theory and low dimensional topology. More specifically, he has studied various relationships between double affine Hecke algebras, skein algebras of surfaces, and knot invariants.



Alex Solomon – MTO Administrator

Originally from Los Angeles, Alex received her BA in Classical and Near Eastern Archaeology from Bryn Mawr College, before completing her MA and MSc in Conservation at UCL. In 2011, she came to Edinburgh to intern at National Museums Scotland and decided the Scottish weather was better than anything she could find back home—just kidding!—she met her partner of 5 years and has been stuck here ever since. Alex joined the University in 2015, as a Student Support Officer in the School of Social and Political Science. In her spare time she enjoys cooking, reading horror novels, and playing the piano for her girlfriend and their 2 cats.



Aretha Teckentrup – Lecturer

Aretha received a PhD in applied mathematics from the University of Bath in 2013. Before coming to Edinburgh, she held postdoctoral research positions at Florida State University and the University of Warwick. Her research interests are at the interface of numerical analysis, statistics and data science, with recent research focussing on multilevel simulation methods, Bayesian inverse problems and approximation theory.



Hemant Tyagi – ATI Research Fellow – Based at Alan Turing Institute, British Library, London

Hemant Tyagi completed his PhD at the Institute of Theoretical Computer Science, ETH Zurich, in 2016. Earlier, he obtained a Masters degree in Communication Systems at EPFL in 2011, and a Bachelors degree in Electrical & Electronics Engineering at NIT Surathkal, in 2006. His research interests broadly revolve around the areas of: low dimensional models for high dimensional data, compressive sensing, approximation theory and high dimensional statistics. He is also interested in (non-) convex optimization as well as online optimization (multi armed bandits etc.).



Alemseged Weldeyus - Post Doctoral Research Assistant

Prior to joining the University of Edinburgh in 2016, Alemseged was a postdoctoral fellow for two years at the Technical University of Denmark where he received his PhD in 2014. His research interest is in the development of models and efficient methods for large-scale optimization problems. In his previous positions, he was mainly working on solution techniques for nonlinear semidefinite programming problems arising from structural optimization.



Amy Wilson – Post Doctoral Research Assistant

Amy studied Mathematics as an undergraduate at the University of Cambridge. She subsequently completed a PhD in Statistics at the University of Edinburgh, under the supervision of Professor Colin Aitken. After completing her PhD she moved to Durham University as a postdoctoral research associate, working on the quantification of uncertainty in problems relating to energy policy. Amy's research interests are in the development of statistical methodology (focussing on Bayesian techniques) for application in practical problems in industry and government.

kmd/25 August 2016