

# NCSE Summer Meeting 2015

## Biographies

### **HAJAR ALKHEZI**

I am a PhD student in statistics at the University of Sheffield, under the supervision of Professor Paul Blackwell. I received my master's degree in statistics in September 2013 from the University of Kent. My master's dissertation in Kent was related to an ecology statistics topic under the supervision of Dr. Diana Cole. I also obtained a bachelor of science degree in statistics and operations research from Kuwait University, in 2009. Prior to coming to England, I worked as a tutor in the Department of Statistics and Operations Research at Kuwait University, which is sponsoring my postgraduate studies.

### **NICOLE AUGUSTIN**

Nicole is a Senior Lecturer in Statistics at Bath University. Previous employers include the Institute of Medical Biometry and Medical Informatics at the University of Freiburg, the Department of Statistics at the University of Glasgow, Biomathematics and Statistics Scotland, the Research Unit of Wildlife Population Assessment at University of St Andrews, Quintiles (UK) and Sandoz Pharma AG in Switzerland.

Nicole's main expertise is in the development of statistical methodology suited for complex health and environmental monitoring data, in particular spatial and spatio-temporal data. The models can all be formulated as penalised generalised linear models (GLMs) and include smooth functions of predictors or functional predictors. In the environmental applications the models are used for environmental monitoring and management by means of spatial and temporal trend estimates. Applications are in forestry, fisheries and epidemiology.

### **JON BARRY**

Jon Barry is a part-time statistician at CEFAS, whose main site is at Lowestoft. He lives in Lancaster and spends 1 in every 4 weeks at Lowestoft. He went to Reading and Edinburgh universities and previously lectured in the Department of Mathematics and Statistics at Lancaster University. As of May 22<sup>nd</sup> he will be the first Green mayor of Lancaster.

### **TAKIS BESBEAS**

Takis Besbeas is a lecturer in Statistics at Athens University of Economics and Business and affiliated with the National Centre for Statistical Ecology through the University of Kent. His research interests involve the development and application of statistical methodology to population ecology and in particular capture-recapture, population dynamics and integrated population modelling.

### **PAUL BLACKWELL**

I'm a professor of statistics at the University of Sheffield. I work on statistics, modelling and stochastic processes, mostly within ecological and environmental applications, and mostly using a Bayesian approach. I have a particular interest in continuous-time movement modelling, and I am also working on marine ecosystem modelling using a multi-model ensemble approach.

## **WILLIAM BROWNE**

Professor William Browne became Professor of Statistics at the Graduate School of Education, University of Bristol in August following 7 years as Professor of Biostatistics at the School of Veterinary Science in Bristol. He is also the director of the Centre for Multilevel Modelling in Bristol. His research interests include multilevel modelling, Bayesian statistics, statistical software development and the application of complex random effect modelling to various fields including education, animal behaviour, ecology, veterinary epidemiology and public health. He has previously worked in the maths department in Nottingham and at the Institute of Education in London following obtaining his PhD at the maths department at the University of Bath.

## **STEVE BUCKLAND**

Steve Buckland is Professor of Statistics at St Andrews. His research interests include distance sampling, modelling population dynamics, and developing biodiversity measures.

## **ADAM BUTLER**

Adam Butler works has worked as a researcher and consultant at Biomathematics and Statistics Scotland since 2004, and specialises in the application of statistics to problems in ornithology, applied ecology and climatology. He has a particular interest in the analysis of data on seabird populations, and has recently been involved in policy-led projects to assess the impacts of offshore wind farms upon seabird behaviour. His PhD (Lancaster, 2005) involved the application of extreme value theory to data on sea levels in the North Sea, and he is currently working on a project that uses extreme value methods to try and quantify the risk of spatially widespread flooding within Scotland.

## **EDD CODLING**

Edward Codling is a Professor of Mathematical Biology in the Department of Mathematical Sciences at the University of Essex. He is currently using a range of statistical tools to explore and analyse movement data from a range of animal species. In particular, in a major inter-disciplinary project he is using novel wireless local positioning sensors to track the movements, activity, and behaviour of dairy cows, with the aim to create an automated monitoring system to predict cow health and welfare status.

## **DIANA COLE**

Diana Cole is a senior lecturer at the University of Kent, as well as Chair of the Environmental Statistics Section of the Royal Statistics Society. Her interest in ecological statistics started as research associate at the start of NCSE. See <http://www.kent.ac.uk/smsas/personal/djc24/index.htm>

## **EMILY DENNIS**

I am a Research Associate at the University of Kent, based at Butterfly Conservation in Dorset. I recently completed a PhD in Statistics at the University of Kent. I am interested in models for abundance and distributions, with a focus on developing methods for modelling butterfly and moth data.

## **DAVID ELSTON**

David Elston has over 30 years experience of collaborating with researchers addressing scientific issues in agriculture and the environment. His methodological interests cover spatial and temporal modelling,

monitoring and the analysis of unbalanced data using hierarchical models in both frequentist and Bayesian settings. David has been Director of Biomathematics and Statistics Scotland since 2003.

### **CHRISTOPHER GRIFFITHS**

A first year NERC PhD student in quantitative marine ecology at the University of Sheffield within the ACCE (Adapting to the changes of climate change) DTP. My primary supervisors are Prof. Paul Blackwell (University of Sheffield), Dr. Julia Blanchard (Institute of Marine & Antarctic Science, Tasmania, and Australia), Prof. Richard Law (University of York), Dr. Jon Pitchford (University of York) and Dr. David Righton (CEFAS). My research aims to use individual tagging data to test the movement assumptions of marine size spectrum models with the ultimate aim of incorporating more biological realistic movement into these complex community models. Prior to my PhD I gained an MRes from the University of Aberdeen and a BSc in Biology from the University of Sheffield. On a personal level, I'm a proud Welshman and love pretty much all sports especially football and rugby union.

### **ANITA JEYAM**

I am a 2nd year PhD student at the University of Kent. My research topic is "New methods of model selection and assessment for complex capture-recapture models".

### **CHARLOTTE JONES-TODD**

I am currently carrying out a PhD in Statistics at St Andrews University, my research is focused on developing methodologies for Spatial and Spatio-temporal data analysis, specifically for point pattern data.

### **NATOYA JOURDAIN**

Natoya Jourdain is a third year PhD Statistics student at the University of Kent, Canterbury. She received her BSc in Mathematics with honours, graduate Diplomas in Development Studies and Education-Mathematics from the University of Guyana. After her five-year career as a Researcher and Assistant Lecturer at the University of Guyana, she pursued graduate studies in Statistics at the University of Kent. Natoya received her MSc with Distinction, a qualification which gained her a PhD studentship to conduct research in Statistics at Kent. Her PhD Thesis is entitled New analytical methods for camera trap data. She is collaborating with Professor Martin Ridout, Dr Diana Cole and Dr Marcus Rowcliffe, and has presented her work at ISEC and IBS international conferences, 2014. In addition to her research and teaching, Natoya is a student ambassador and an enthusiastic West Indies cricket fan. She recently delivered outreach presentations on her thesis to school students.

### **RACHEL McCREA**

I am a NERC research fellow and lecturer in statistics at the University of Kent. I have particular research interests in multistate modelling, model diagnostics and model discrimination. My current fellowship project concerns the modelling of dependent data using individual based methods and I am particularly interested in the development of rigorous estimation procedures for use in integral projection models. I currently supervise 3 statistics PhD students and am advisor for a number of conservation ecology PhD students.

## **ALISON PARTON**

Having completed a masters in Mathematics at the University of Sheffield last year, I am now working towards my PhD in the Probability and Statistics department under the supervision of Prof Paul Blackwell. My field of research is in animal movement, and in particular, developing continuous-time statistical models for animal movement data.

## **ROCIO PRIETO GONZALEZ**

I am currently a PhD student in statistics at the University of St Andrews, supervised by Dr Len Thomas and Dr Tiago Marques. My research broadly involves the development of statistical methods to include animal movement in distance sampling methodology. I am especially interested in the application of the methods in practice. In particular, the focus of my PhD is on estimating the abundance of cetaceans using passive acoustics.

## **MICHAEL SPENCE**

I am a Post Doctoral Research Assistant in the Animal and Plant Science department at the University of Sheffield. I work on the Marine Ecosystem Research Programme (MERP) along with Julia Blanchard (University of Tasmania) and Paul Blackwell (University of Sheffield) building model ensembles from many complex models of marine ecosystems.

Other research interests include: Computational Statistics; Individual Based Models; Intractable likelihood.

## **BEN STEVENSON**

Ben Stevenson is a third-year PhD student at the University of St Andrews. His research involves the development of spatially explicit capture-recapture methodology, as well as the associated software.

## **JOHN JOSEPH VALLETTA**

After completing my undergraduate degree in electrical engineering at the University of Malta, I spent a year working in Detroit, USA as a quality liaison engineer. In 2006 I moved to Sheffield, UK to pursue a M.Sc. in control engineering. This was followed by a Ph.D. at the University of Southampton, where I applied mathematical modelling to look at the relationship between habitual physical activity, glycaemic control and the microvasculature in people with type 1 diabetes. In 2011 I joined the McLaren F1 Racing team where I continued to grow an interest in applying machine learning techniques to high-dimensional data. I joined the University of Exeter's Mathematics and the Environment group at the Penryn campus in 2014.

## **JORGE A VÁZQUEZ DIOSDADO**

I am currently a Senior Research Officer in the Department of Mathematical Sciences at the University of Essex, UK, working on the '[assessment of dairy cow welfare through predictive modelling of individual and social behaviour](#)' funded by the [BBSRC](#). The main goal of the project is to develop an early warning system for automating detection of lameness and mastitis of dairy cows ([highlights on BBC](#)).

## **JOYCE YUAN**

Yuan (Joyce) Yuan is a research fellow in the Centre for Research into Ecological & Environmental Modelling at University of St Andrews. She is interested in wildlife population assessment methods, spatial and spatial-temporal modelling approaches, and biodiversity measures specifically for studying temporal turnover and how it varies in space.

## **MING ZHOU**

Ming is a first-year PhD student in Kent, her research is to investigate statistical development of ecological removal models. Prior to this, she received BSc in Mathematics and Statistics from University of Leeds and MSc in Statistics from University College London.