ROYAL STATISTICAL SOCIETY

DATA | EVIDENCE | DECISIONS

RSS International Conference
for all statisticians and users of data

Conference directory

www.rss.org.uk/conference2017

Visit Wiley during the
RSS 2017 International Conference

Have fun in our photo booth and get a printed souvenir to take home with you.

SMILE!

Add the joint YSS/Wiley Author Workshop to your schedule.

Get advice on submitting and promoting your next paper, and a handy guide to take home with you.

Tuesday, 5th September, 11:50-13:00

Speakers: Brian Tarran, Significance

Adrian Bowman, University of Glasgow

Save 20% on the latest books

Download the apps for Significance and the Journals of the Royal Statistical Society – Series A, B and C.

Get the latest content with personalised alerts and register for free sample issues

Stay informed with StatisticsViews.com

Statistics by Wiley

@Wiley_Stats

WILEY

302307

Welcome

A very warm welcome to the **2017 RSS Conference** and to the friendly city of Glasgow, where we hope you will enjoy all the very best that Scottish hospitality has to offer. Our venue at the University of Strathclyde is ideally situated for exploring the city, with the venue right next to the City Centre and Merchant City areas. On Monday evening, Glasgow City Council will be hosting a civic reception to welcome the RSS to the city.

The conference team has worked extremely hard to produce an exciting, varied line up of distinguished plenary sessions, parallel sessions (which are fully streamed into their relevant fields) and a comprehensive line up of professional development sessions. For the first time, we have a series of "rapid fire" presentations aimed at those who are new to presenting at a conference, and we hope you will come along and support them. The range of topics presented and discussed, and the breadth of the audience, means that the RSS conference is the only one in the U.K. where statisticians and users of data gather together, making it the best forum for sharing information, networking and learning from each other.

Along with the Civic Reception, we have a range of social events planned too, including the RSS Awards and Poster Reception and our annual pub quiz (organised by the Young Statisticians Section, who will be visible throughout the event offering help and support to those who are newer to attending the conference). A particular highlight for us will be the conference dinner and ceilidh, at the Old Fruitmarket, where you can sample some traditional Scottish dancing (please don't worry if you've never been to a ceilidh before - part of the fun is joining in and we'll have people on hand to show you what to do!).

We hope you have a great time, catching up with old friends, and making new ones.

"**It's gid to see ya, hae a gid time! Here's tae us, wha's like us!**" (Translated as "it's good to see you, have a good time! Cheers, wishing you good health"!)

Kim Kavanagh • **RSS Honorary Officer for Conference**   Scott Heald • **RSS 2017 Programme Chair**

General event information

Accessibility

There is level access to the building (Level 2 is the ground floor), lift access is available to all floors and there are accessible toilets on all floors. All Auditoria and Conference Rooms are fitted with induction loops.

Badges

Conference attendees are asked to wear their badges and lanyards at all times while at the Conference.

Lost badges will be replaced at the discretion of the conference organisers. A replacement fee may be charged.

Catering (Daytime)

Lunch as well as tea/coffee at the mid-morning break and the mid-afternoon break is provided as part of your conference fee. All refreshments will be served in the Exhibition area on Level 2 of the Technology & Innovation Centre (TIC). An additional serving point will be located on Level 3 next to the poster display.

Cloakroom

An unstaffed cloakroom will be available on Level 2 of the TIC. This will be open each day during the hours of the conference programme. Please note that attendees leave coats, bags and other personal items in the cloakroom entirely at their own risk – the Society and the University accept no responsibility for items which are lost or damaged.

Dietary requirements

For those attendees who have notified the organisers of special dietary requirements* the following arrangements will be made:

- Lunchtimes – please ask a member of catering staff
- Thursday night dinner – please make yourself known to the RSS staff at the registration when you arrive at the venue

Please note that at both the receptions on Monday evening and Tuesday evening canapés are being served.

- The conference organisers have tried to cater for all dietary requirements, however for some social events the venues may be limited on what they can accommodate. If you are concerned about this, please contact the RSS conference team.

* N.B. There will be vegetarian options provided at lunchtime and the evening receptions which do not require any special arrangements but for the conference dinner vegetarians should talk to the RSS registration staff as above.

Mobile phones

We ask that you switch your mobile phones and other hand held devices to silent when you are in sessions.

Photography and Recording sessions

The Society will have a photographer taking photographs in many sessions and at social events. The Society may use photographs taken in conference reports, publications and in future publicity materials. If you would prefer your photograph not to be used in this way please contact the conference office.

Please note that the Society will also be recording a number of key sessions during the conference which will be made available from the Society's website in due course.

Presenters' desks

For speakers wishing to submit their presentations during the conference and for poster presenters registering their poster the presenters' desks will be located in the Mezzanine area on Level 3.

Registration and information desk

The conference registration desk can be found on Level 2 in the TIC – enter through the main entrance on George Street.

The Registration desk will open at the following times:

MONDAY 4 SEPTEMBER	3PM – 6.30PM
TUESDAY 5 SEPTEMBER	8AM – 6PM
WEDNESDAY 6 SEPTEMBER	8.15AM – 6PM
THURSDAY 7 SEPTEMBER	8.30AM – 2PM

Session locations

Plenary sessions will be held in the Main Auditorium on Level 2 of the TIC. All other sessions will be held in one of nine rooms on the first, second, third and ninth floors of University Place.

ALL sessions are open to all attendees registered to attend on the relevant day.

Social events

If you have booked to attend one of the evening social events this will be indicated on your conference badge. There are no tickets for these events, however you will be required to present your badge on entry to the Welcome Reception and the Conference Dinner, and will only be served at the Awards/Poster Reception if you are wearing your badge.

Stewards and Staff

RSS stewards (in RSS t-shirts) and RSS staff members (identified by their badges) will be happy to assist you throughout the conference.

Timings for presentations

The following timings for presentations will *normally* apply:

- Keynote talks: 30-45 minutes **plus** time for questions and discussion
- Invited talks: 20-30 minutes **plus** time for questions and discussion
- Contributed talks: 20 minutes **including** time for questions and discussion
- Rapid-fire talks: 5 minutes with **no** questions or discussion

Twitter

You can follow the conference on Twitter: **RSSAnnualConf** – please use the hashtag **#RSS2017Conf**

Wi-fi Access

WiFi is available through BSkyB's The Cloud:

- Select '**WiFi Guest**' from the list of your available networks
- Launch your preferred browser and click Get Online (if your browser does not automatically direct you to The Cloud homepage, please type **https://www.thecloud.net** or **8.8.8.8** into your preferred browser)
- Select Sign up now and click on Create Account
- If you have used a Cloud Wi-fi account elsewhere before, you can use the same credentials. If not, select Create Account and enter all mandatory information requested.
- Select Continue
- You are now online!

Access via Eduroam is available to those visiting from other academic institutions – attendees should log on using the credentials provided by their home institution.

Exhibitors at RSS 2017 Conference

SAGE Publishing
Sara Miller McCune founded SAGE Publishing in 1965 to support the dissemination of usable knowledge and educate a global community. SAGE publishes journals, books, and library products spanning a range of subject areas. SAGE remains majority-owned by our founder, who has ensured that the company will remain permanently independent. **www.sagepublishing.com**

Urban Big Data Centre
is a national data service, funded to support data owners, policy makers, researchers and everyday citizens in extracting useful information from urban-related data. We help others harness the potential of big data to develop solutions for environmentally sustainable, economically resilient, and socially just cities.

CRC Press – Taylor & Francis Group / Chapman & Hall
Chapman & Hall/CRC – Taylor & Francis Group is a premier books and journals publisher, as well as a publishing partner with the ASA for its journals. Stop by our booth to buy our latest books at 20% discount, or to pick up a journal sample copy.

MANGO SOLUTIONS
provide advanced data analysis solutions, consulting, training, and application development for some of the largest companies in the world. They offer a number of bespoke products for data science, including validation of open-source software for regulated industries.

Administrative Data Research Centre Scotland
The Administrative Data Research Centre (ADRC) Scotland provide a safe, secure data linkage service for researchers in Scotland. We enable researchers to carry out social and economic research using administrative data the information that public organisations collect every day. Based at 9 Edinburgh Bioquarter, we are part of the UK Administrative Data Research Network (ADRN).

The Sensible Code Company We work with economists, statisticians and data managers to help them to improve their business operations using data science techniques and machine learning.

WILEY
is a global provider of knowledge and knowledge-enabled services that improve outcomes in areas of research, professional practice and education. We partner with learned societies, including the Royal Statistical Society, and support researchers to communicate discoveries that make a difference. Our digital content, books and 1600 online journals build on a 200 year heritage of quality publishing. For further information, visit **wileyonlinelibrary.com**.

ROYAL STATISTICAL SOCIETY
DATA | EVIDENCE | DECISIONS
Visit the **RSS member zone** to find out more about all aspects of the RSS community and how to make the most of the wide range of benefits on offer. We will be hosting a number of drop-in sessions throughout the week ranging from what's happening with Sections and Local Groups to a Q&A session on our professional accreditation pathways. We would love to hear your feedback on your experience of RSS membership so please come and see us for an informal chat.

esri UK
is the global market leader in geographic information systems (GIS), offering the most powerful mapping and spatial analytics technology. Since 1969, Esri has helped customers unlock the full potential of data to improve operational and business results. Today, Esri software is deployed in more than 350,000 organisations including the world's largest cities, national governments, as well as colleges and universities around the world.

OXFORD UNIVERSITY PRESS
is the world's largest university press with the widest global presence. Our Global Academic Publishing program spans the entire academic and higher education spectrum, including a wide array of scholarly and general interest books, journals, and online products.

JMP
JMP is a business unit of SAS that produces interactive software for desktop statistical discovery. Introduced in 1989 with scientists and engineers in mind, JMP has grown into a family of statistical discovery products used worldwide in almost every industry. From its beginnings, JMP software has empowered its users by enabling interactive analytics on the desktop. **www.jmp.com**

Minitab is the leading statistical software for quality improvement and statistics education and is used at more than 4,000 colleges and universities worldwide. Our latest release, Minitab 18 includes new features and functionality to make data analysis easier than ever. Minitab's Assistant menu guides users through methods including measurement systems analysis, hypothesis tests, DOE, control charts, and capability analysis – and helps interpret the results.
Visit www.minitab.com for more information

NHS National Services Scotland Come along to the NHS National Services Scotland stand and hear about work we do to assist decision makers in the planning and management of health and care services through the use of data and intelligence. Our staff will also be on hand to talk about career opportunities within the NHS.
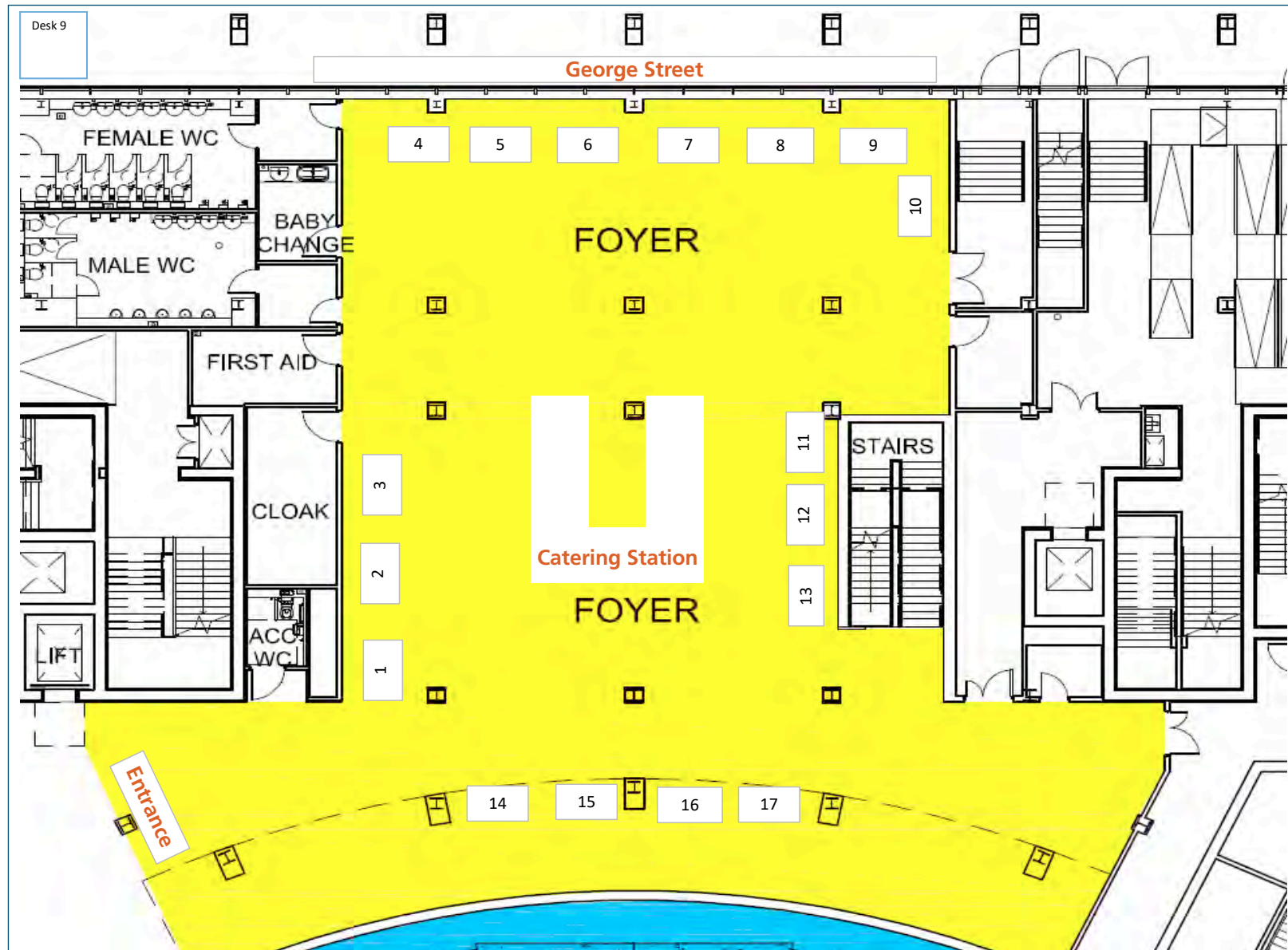
THE DATA LAB The Data Lab enables new collaboration between industry, public sector & academia to tackle economic and societal challenges through innovative applications of data science. Our mission at The Data Lab is nothing less than realising the full potential for Scotland by leveraging data.

Jumping Rivers is an analytics company whose passion is data. We help our clients move from data storage to data insights. Jumping Rivers Ltd provides training, consulting and dashboard development.

Exhibition Plan

Desk 9

George Street

FEMALE WC

MALE WC

BABY CHANGE

FIRST AID

CLOAK

LIFT

ACC. WC

FOYER

Catering Station

FOYER

STAIRS

Entrance

| 4 | 5 | 6 | 7 | 8 | 9 |

10

11

12

13

3

2

1

14 15 16 17

1	SAGE
2	Urban Big Data Centre
3	Chapman & Hall/CRC – Taylor & Francis Group
4	TBC
5	Mango Solutions
6	Administrative Data Research Network
7	The Sensible Code Company
8	Wiley
9/10	Royal Statistical Society
11	ESRI UK
12	Oxford University Press
13	JMP SAS
14	TBC
15	Minitab
16	NHS National Services Scotland
17	The Data Lab (Tuesday) / Jumping Rivers (Wednesday/Thursday)

Drop-in to the RSS Member Zone

Throughout conference the RSS Membership team will be hosting a series of drop-in sessions in the Member Zone (stands 9 and 10 in the Level 2 foyer **unless shown otherwise**)

Tuesday 5 September, 11.20-11.50

Ask **Rosie Sweeney** from the Membership team any questions you have about becoming a RSS Fellow.

Tuesday 5 September, 13.10-14.10

Paul Baxter (RSS Vice-President for Professional Affairs) will be available to talk about pathways to GradStat and CStat.

Tuesday 5 September, 18:30 – 19:10 (in Conference Room 2)

Karen Facey (Honorary Officer for Sections and Local Groups) will update representatives of sections and local groups on current and future activities at the Society.

Wednesday 6 September, 11.15-11.45

Discover more about RSS Corporate membership with **Nicola Emmerson** (Director of Membership & Professional Affairs).

Wednesday 6 September, 13.30-14.30

Paul Baxter (RSS Vice-President for Professional Affairs) will be available to talk about the Society's new degree accreditation process.

Wednesday 6 September, 13:40 – 14:20 (in Executive Room A)

Karen Facey (Honorary Officer for Sections and Local Groups) will update representatives of sections and local groups on current and future activities at the Society.
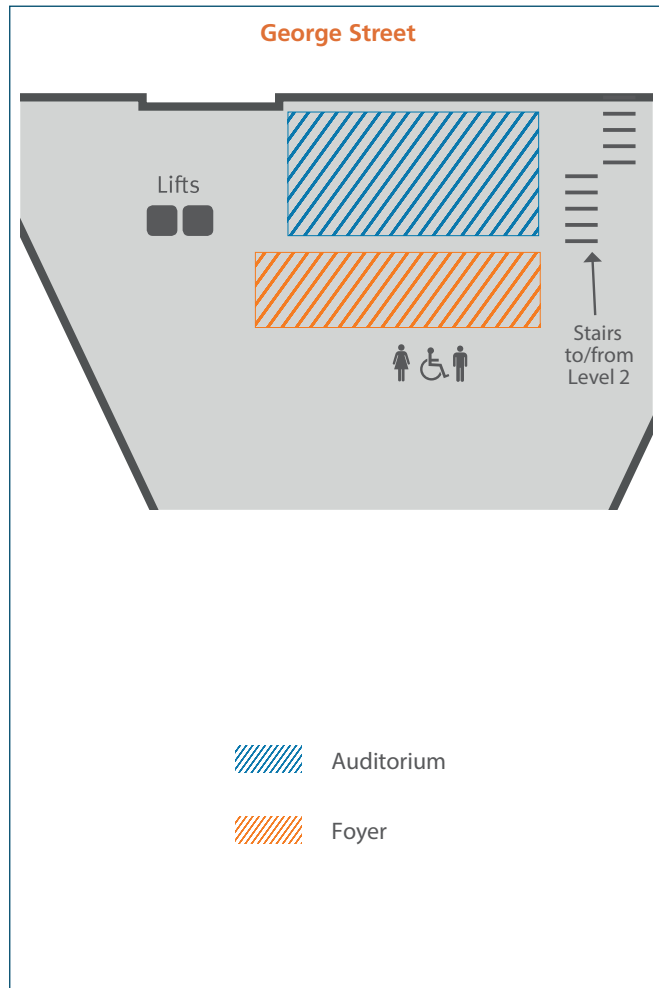
Thursday 7 September, 13.00-14.00

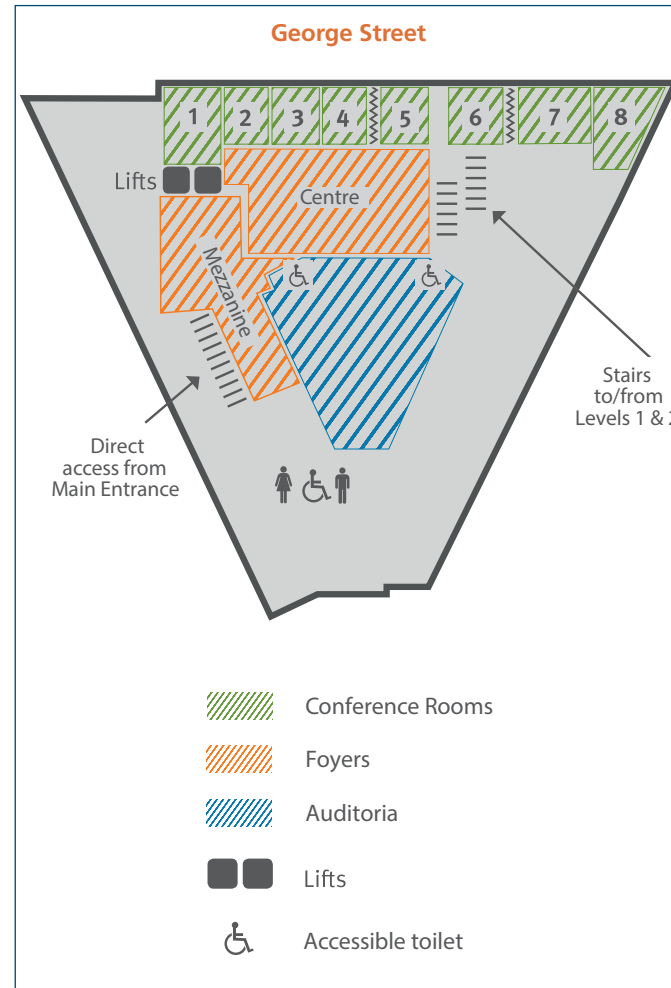Interested in the role of statistics in international development?

Come and meet members of the International Development Section to find out what the section has to offer and how you can get involved.
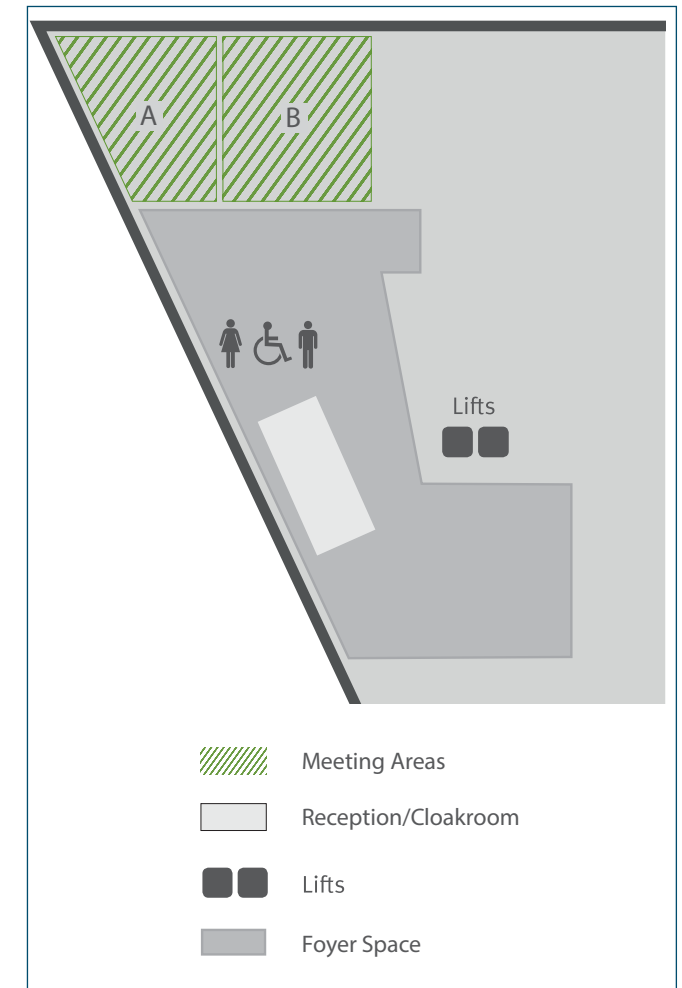
Venue plan

Level 1 Auditorium and Foyer

George Street

Lifts

Stairs to/from Level 2

	Auditorium
	Foyer

Level 3 Conference Rooms and Foyers

George Street

1 2 3 4 5 6 7 8

Lifts

Centre

Mezzanine

Direct access from Main Entrance

Stairs to/from Levels 1 & 2

	Conference Rooms
	Foyers
	Auditoria
	Lifts
	Accessible toilet

Level 9 Executive Suite

A B

Lifts

	Meeting Areas
	Reception/Cloakroom
	Lifts
	Foyer Space

FULL PROGRAMME

All conference sessions are organised in streams. For ease of reference, each stream is represented by a colour in the programme:

Communicating Statistics	Medical Statistics	Plenary
Data Science & computing	Methods & Theory	Professional Development
Environment and Spatial statistics	Official Statistics	Social Statistics
Industry & Commerce	Other	Applications of Statistics

Listings correct at time of publication

MONDAY 4 September

18:00 – 19:00

PLENARY 1

36th Fisher Memorial Lecture - And thereby hangs a tail: the strange history of P-values
Main Auditorium

Professor Stephen Senn - Head of the Competence Center for Methodology and Statistics, Luxembourg Institute of Health

19:00 – 20:30

Welcome Reception – Glasgow City Chambers
Glasgow welcomes conference attendees over drinks and canapés

TUESDAY 5 September

08:30 – 09:00

Professional Development: PD1: Young Statistician's Guide to the Conference

Auditorium A

Whether you are new to RSS conference or a seasoned attendee, this session will help you build your own conference programme, along with tips for getting the most out of conference and a run-down of the YSS highlights.

09:00 – 10:00

Medical: 1.1 Contributed - Clinical Trials

Level 1 Auditorium

Common pitfalls in Oncology Trials
Arnaud Demange - *ICON Clinical Research, France*

Covariate adjustment and prediction of mean response in randomised trials
Jonathan Bartlett - *AstraZeneca, United Kingdom*

The analysis of two-stage randomised trials when some participants are indifferent to treatment choice
Stephen Walter - *McMaster University, Canada*

Data Science: 1.7 Contributed - Clusters and networks

Conference Room 4/5

Network Influence: A New Measure on the Importance of Network Components
Frederick Kin Hing Phoa - *Academia Sinica, Taiwan*

Extracting Meaningful Patterns from Big Binary Data using E-BiBit Algorithm in R
Ewoud De Troyer - *Hasselt University (CenStat), Belgium*

A soft Adjusted Rand Index for comparing probabilistic clusterings
Nema Dean - *University of Glasgow*

Official Statistics & Public Policy: 1.2 Contributed - Use of the Census

Conference Room 2

New opportunities and challenges in census coverage assessment
Viktor Racinskij - *Office for National Statistics, United Kingdom*

An innovative approach to estimating the costs of the 2021 Census Coverage Survey
Adriana Castaldo - *Office for National Statistics, United Kingdom*

An online census: Will people respond online? Characteristics of online and paper respondents
David Corps - *Office for National Statistics, United Kingdom*

Environmental/Spatial: 1.3 Contributed - Environment and Health

Conference Room 3

Global Estimation of Air Quality and the Burden of Disease associated with Ambient Air Pollution
Gavin Shaddick - *University of Exeter*

Using Low Cost Sensors to Measure Air Pollution
Yoana Borisova - *University of Glasgow*

Air Health Indicator: Does ozone's adverse health effect depend on age, sex and region?
Hwashin Hyun Shin - *Health Canada*

Social Statistics: 1.4 Contributed - Methodology

Conference Room 1

Investigating and Optimising Patients' Medicines Networks after Discharge from Hospital: A Multilevel Approach.
Mark Tranmer - *University of Glasgow*

Lexis surface visualisations: a vitally important tool for seeing and understanding patterns in population data
Jonathan Minton - *University of Glasgow, United Kingdom*

An extension of the general 3-step ML approach to random effects event history models with multiple latent categorical predictors
Yajing Zhu - *London School of Economics and Political Science, United Kingdom*

SAGE Publishing

Methods & Theory: 1.5 Contributed - Time Series

Conference Room 6/7

Verifying predictions
Mark Davis - *Imperial College, United Kingdom*

Optimal bias-correction in the log periodogram estimation of the fractional parameter: A jackknife approach
Kanchana Nadarajah - *Monash University, Australia*

Simulation-based selection of prediction models
Robert Kunst - *Institute for Advanced Studies, Austria*

Medical: 1.8 Contributed - Predictive and prognostic modelling

Executive Room A

Developing predictive models for severe postoperative complications in cardiac patients
Linda Lapp - *University of Strathclyde*

Predictive modelling for healthcare associated infections: machine learning v.s. classical approaches
Jiafeng Pan - *University of Strathclyde*

Estimating risk of seizure recurrence for people with epilepsy
Laura Bonnett - *University of Liverpool*

Communicating Statistics: 1.6 Contributed - Statistical literacy and training in schools and the workplace

Executive Room B

Student active learning online and in the classroom by combining the best of Flipped Classroom and MOOCs when teaching statistics
Maria Karlsson - *Umeå University*

Getting down and dirty with data: how Q-Step Centres are training students in the workplace
Jackie Carter - *University of Manchester, United Kingdom*

10:10 – 10:20

Welcome to Conference - Main Auditorium

Kim Kavanagh (University of Strathclyde/RSS Honorary Officer for Conference) and Scott Heald (Programme Chair RSS 2017 Conference) welcome attendees to the conference.

10:20 – 11:20

PLENARY 2

Adrian Bowman
Main Auditorium

Professor Adrian Bowman - University of Glasgow
Surfaces, shapes and anatomy

11:20 – 11:50

Refreshment break - Level 2 Foyer

11:50 – 13:10

Official Statistics & Public Policy: 2.2 Invited - From better data to better decisions to better lives

Auditorium A

Statistics in themselves have only latent value which is realised when they are actually used to make better decisions that improve welfare. Drawing on examples from the work the UK Office for National Statistics is undertaking to better inform public policy through generating relevant evidence for decision making and on the ways the government of the Punjab is using evidence from new data sources to improve policy and the delivery of health and disaster relief services, this session will showcase some of the challenges and opportunities facing statisticians in analysing and demonstrating the links from better data to better decisions to better lives.

The session will include presentations by Hugh Stickland, Deputy Director of Strategy and Engagement at ONS and Matthew Powell, Senior Consultant at Oxford Policy Management and will be followed by a discussion of the contrasts between the two examples and possible lessons for statistics in Scotland.

Organised by the RSS International Development and Official Statistics Sections

Medical: 2.1 Invited - Clinical trial estimands - moving from definition to estimation

Level 1 Auditorium

Estimands - What are the key concepts in the ICH E9 Addendum and what challenges and opportunities does this create for new research?
David Wright - *AstraZeneca, United Kingdom*

Estimands in Clinical Trials - Broadening the Perspective
Mouna Akacha - *Novartis Pharma AG, Switzerland*

Inference about estimands other than ITT in randomised trials: importing methods from causal inference
Rhian Daniel - *Cardiff University, United Kingdom*

Organised by Jonathan Bartlett (AstraZeneca) and the RSS Medical Section

Methods & Theory: 2.5 Invited - Recent developments in high-dimensional data analysis

Conference Room 1

Functional Covariance Models on High Dimensional Functional Data
Xinghao Qiao - *London School of Economics, United Kingdom*

Long-Range Dependent Curve Time Series
Degui Li - *University of York*

A feature distributed framework for large-scale sparse regression
Chenlei Leng - *University of Warwick, United Kingdom*

Organised by Chenlei Leng and the RSS Research Section

Environmental/Spatial: 2.3 Invited - Quantifying the changing nature of health inequalities

Conference Room 2

A Bayesian Space-Time Model for Clustering Areal Units based on their Disease Trends
Gary Napier - *University of Glasgow*

Education and deprivation as explanations of school-level variation in suicidal behaviour in a cohort of 275,420 Scottish school leavers, 2007-2012
Catherine Stewart - *MRC/CSO Social & Public Health Sciences Unit, University of Glasgow*

Investigation of inequalities in vaccine uptake in Scotland
Chris Robertson - *University of Strathclyde*

Organised by Duncan Lee (University of Glasgow)

Social Statistics: 2.4 Invited - ScotCen - Is seeing believing? Producing quantitative output for a non-quant audience

Conference Room 3

'Realigning Children's Services': Development of a data visualisation tool for Community Planning Partnerships
Stephen Hinchliffe - *ScotCen Social Research*

What Scotland Thinks and What UK Thinks – producing bespoke graphs using polling data from the EU referendum
John Curtice - *ScotCen Social Research and University of Strathclyde*

Organised by Paul Bradshaw (ScotCen)

Data Science: 2.7 Invited - Data Science of urban movement

Conference Room 4/5

Exploring the relationship between Strava cyclists and all cyclists
Jinhyun Hong - *University of Glasgow*

Will using the internet while travelling reduce future car ownership rates of Millennials?
David McArthur - *University of Glasgow*

Utilising Strava Metro data for Research of Urban Transport and Health
Yeran Sun – *University of Glasgow*

Assessing the relationship between social capital and active travel
Prachi Bhatnagar - *University of Oxford*

Discussant: Richard Harris - *University of Bristol*

Organised by the Urban Big Date Centre, University of Glasgow

Communicating Statistics: 2.6 Invited - Statistical literacy: Understanding & communication of statistics

Conference Room 6/7

Encouraging and Improving Statistical Literacy in the U.S. Media
Rebecca Goldin - *George Mason University*

Statistical literacy approaches in the UK – progress in the UK
Scott Keir - *Head of Education and Statistical Literacy, Royal Statistical Society*

The RSS Super-set project – the common lessons and factors from our previous work
David Spiegelhalter - *President, Royal Statistical Society*

Professional Development: PD2: Getting your research published and maximising its impact

Executive Room A

This session will be of interest to career young researchers and/or those who wish to publish their work in academic journals and magazines and raise the visibility of their research.

The session will provide valuable advice for writing journal articles, give an overview of the journal review processes, and explore available self-promotional tools.

Our first speaker will discuss key elements of writing a research article, explore what makes a "good" article, and mention some common mistakes to avoid.

Our second speaker will explore the journal review process and explain what reviews are looking for.

The final speaker will highlight the array of self-promotional tools available to any author who is considering publishing an article, including Search Engine Optimisation, Article Citation Tracking and Altmetrics, Email and Social Media Sharing Tools.

Presenters will be Professor Adrian Bowman (University of Glasgow), Stephen Raywood (Journals Editor, Wiley), Jemma Blow (Associate Marketing Manager, Wiley) and Brian Tarran (Editor, Significance magazine)

Professional Development: PD3: Data Manipulation, modelling and analysis with Pandas and Jupyter - an introduction

Executive Room B

Pandas is an open source package that provides flexible and high-performance data manipulation, modelling, and analysis tools for Python. Jupyter (open source) is an interactive programming notebook, that is particularly useful when combined with Pandas for exploring data. We've put together a workshop which is designed to give people an introduction to these powerful tools. As well as giving some basic lessons we'll introduce you to some open source libraries we've built and which help to get time series data out of large gnarly spreadsheets.

Prerequisites: This workshop is suitable for people who use R, SAS or SPSS. If you wish to participate and try things out during the session we recommend that you bring your laptop with Jupyter and Pandas already installed. The best way to do this is to use Anaconda (a Python installer that bundles Jupyter and Pandas). Instructions here: *https://docs.continuum.io/anaconda/install/*

Organised by The Sensible Code Company

13:10 – 14:10

Lunch - Level 2 Foyer

13:15 – 14:10

Young Statisticians' Reception - Level 3 Foyer

Come and meet fellow career-young statisticians over lunch. All welcome – no need to book a place!

13:30 – 14:00

RSS Strategy consultation

Executive Room A

The Society is beginning the process of developing its strategic plan beyond 2018. Come and feed in your thoughts about directions the Society could take in the future to meet the needs of Fellows.

14:10 – 15:30

Data Science: 3.7 Invited - Grand challenges in Data-Centric Engineering

Auditorium A

Prediction and Tomography of the London Underground
Ricardo Silva - *UCL / The Alan Turing Institute, United Kingdom*

Statistical Methods for Instrumented Infrastructure
Din-Houn Lau - *Imperial College London, United Kingdom*

Predictive monitoring of Gas Turbines
Catalina Vallejos - *The Alan Turing Institute, United Kingdom*

This session, supported by the Lloyd's Register Foundation and the Alan Turing Institute, will present fundamental research and ground-breaking innovation in the applications of data science to engineering. These projects aim to directly address the challenges in improving resilience in infrastructure, safety in society, and to generate scientific advances that will have international impact.

SAGE Publishing

Official Statistics & Public Policy: 3.2 Invited - Update from the UK Statistics Authority - Code of Practice Review and Post-Brexit round-up

Level 1 Auditorium

Refreshing the code
Penny Babb - *Office for Statistics Regulation*

There will be an opportunity for Q&A - we would welcome hearing your thoughts about the Code

Methods & Theory: 3.5 Invited - Theoretical advances in Bayesian Nonparametric

Conference Room 1

Dependent nonparametric priors with nested structures
Antonio Lijoi - *Università Bocconi, Italy*

Dependent nonparametric priors with hierarchical structures
Igor Pruenster - *Università Bocconi, Italy*

Constructing stationary time-dependent completely random measures
Jim Griffin - *University of Kent*

Provides a modern overview of some of the recent results in the theory and computations of random distributions

Organised by Maria De Iorio (UCL)

Environmental/Spatial: 3.3 Invited - Compositional data analysis in modern biology and ecology

Conference Room 2

Compositional data analysis on log-ratio coordinates
Javier Palarea-Albaladejo - *Biomathematics & Statistics Scotland, United Kingdom*

Compositional canonical biplots
Jan Graffelman - *Universitat Politecnica de Catalunya*

Dissimilarity measures to characterize compositions of microbial communities
Glòria Mateu-Figueras - *Universitat de Girona*

Phylofactorization: compositional graph partitioning captures evolutionary structure of ecological and microbiome datasets
Alex Washburne - *Duke University, United States*

In memoriam of Professor John Aitchison (1926-2016): this session will include an introductory talk by Professor Adrian Bowman of the University of Glasgow to celebrate John Aitchison's life and academic contributions, in particular to the statistical theory and methods for compositional data analysis.

Organised by Javier Palarea-Albaladejo (BioSS)

Social Statistics: 3.4 Invited - Area-based Scottish inequality measures for policy and research

Conference Room 3

Using SIMD for describing and targeting inequalities in local areas
Maike Waldmann - *Scottish Government*

Carstairs deprivation scores for small areas in Scotland
Denise Brown - *MRC/CSO Social and Public Health Sciences Unit, University of Glasgow*

Discussion will be led by Mirjam Allik (Urban Big Data Centre, University of Glasgow)

Organised by Linsay Gray (MRC/CSO Social and Public Health Sciences Unit, University of Glasgow)

Applications of Statistics: 3.8 Invited - The role of Sports Science in recent Olympic and Paralympic success

Conference Room 4/5

Tracking Medal Success at the Rio 2016 Paralympic Games
Oliver Summers - *UK SPORT*

This session will showcase how sports science generates data and how that is used to enhance performance – with a particular link to GB successes at the 2016 Rio Olympic and Paralympic Games.

Contributions cover a variety of sport science disciplines including Physiology, Biomechanics and Performance Analysis.

Organised by Dr Bex Newell and Dr Beverley Hale

Medical: 3.1 Invited - Survival analysis: beyond proportional hazards

Conference Room 6/7

The session will consider some of the statistical challenges facing analysts when trying to estimate the comparative effectiveness and cost-effectiveness of treatments that may improve survival.

Adjusting survival time estimates in the presence of treatment switching
Nick Latimer - *University of Sheffield*

Synthesis of survival data
Suzanne Freeman - *University of Leicester*

Modelling approaches to the extrapolation of survival curves
Beth Woods - *University of York*

Organised by the RSS Medical Section

Professional Development: PD4: CStat: What? Why? How?

Executive Room A

This workshop is intended for anyone who is thinking about applying for CStat status or interested in knowing more about CStat.

Speakers will give information about CStat (answering the questions What? Why? How?) and will share their own experiences of the application process.

Presenters will be Rob Mastrodomenico (Global Sports Statistics/RSS Honorary Officer for Membership) and Paul Baxter (University of Leeds/RSS Vice-President for Professional Affairs).

Communicating Statistics: 3.6 Invited - Promoting statistical literacy in Scottish schools

Executive Room B

Resources: Using data in teaching - developing digital skills by incorporating real data in teaching
Cecilia Macintyre - *Scottish Government*

Scottish Qualifications Authority Statistics Award
John Reilly - *University of Glasgow*

Practice: how statistics is approached within 'numeracy across learning' in schools
Tom Macintyre - *University of Edinburgh*

Q-STEP: Studying quantitative methods in social and political sciences - extending statistical literacy through outreach to schools
John MacInnes - *University of Edinburgh*

Organised by Cecilia Macintyre (Scottish Government)

15:40 – 16:40

PLENARY 3

Campion (President's Invited) Lecture
Main Auditorium

Professor Rebecca Goldin - George Mason University
The Media's Love-Hate Relationship with Statistics: Challenges in Communication

16:40 – 17:00

Refreshment break - Level 2 Foyer

17:00 – 18:15

Royal Statistical Society Annual General Meeting & Awards Ceremony
Main Auditorium

Details of the award recipients can be found in the relevant insert at the back of the directory

Poster & Awards Reception - Level 3 Foyer

Information about the order of poster presentations can be found in the relevant insert at the back of the directory

Statistical Performance Night:
The 144 Club

Tuesday 5 September, 8:30pm - 11:30pm

Buff Club (Top Floor), Butterfly and Pig, Bath Lane, Glasgow G2 4SQ

The rules of the 144 Club are numerical and simple: 1 statistician, speaking for up to 4 minutes, with up to 4 slides. Other science communication events may shun numbers and graphs, but here they are welcomed like old friends. These statistical performers might make the audience laugh, or gasp, or cry, or even feel mildly nauseous, **but they will not**, repeat **not**, be dull.

The event is open to everyone to come along to but you can book tickets in advance here:
https://www.eventbrite.co.uk/e/the-1444-club-tickets-36962097629

The suggested donation for booking tickets in advance is £1, but tickets can still be bought on the night at the door with a suggested donation of £2.

WEDNESDAY
6 September

08:45 – 09:45

Methods & Theory: 4.5 Contributed - Trials & Surveys

Conference Room 1

Bayesian Inference for Population Attributable Risk
Sarah Pirikahu - *Massey University, New Zealand*

Calibrating Non-Probability Samples With Probability Samples Using LASSO
Michael Elliott - *University of Michigan*

The Efficiency and Optimality characterization of certain balanced incomplete-block designs emanating from some quasi-semi-Latin squares
Polycarp Chigbu - *University of Nigeria, Nsukka*

Medical: 4.1 Contributed - Pragmatic methods and design

Level 1 Auditorium

Using published Kaplan-Meier curves to reconstruct survival data for secondary analyses
Yinghui Wei - *Plymouth University*

Bivariate network meta-analysis for surrogate endpoint evaluation
Sylwia Bujkiewicz - *University of Leicester, United Kingdom*

Analysing Stepped Wedge Cluster Randomised Controlled Trials by means of a Linear Mixed Effects Model: A simulation study
Alecia Nickless - *Nuffield Department of Primary Care Health Sciences, University of Oxford*

Official Statistics & Public Policy: 4.2 Contributed - Harnessing Routine Data

Conference Room 2

300 years Wargentin birth: TABELLVERKET's data analysis
Elisabeth Morand - *Ined*

Occupied address (household) estimates from Administrative Data
Pete Jones - *Office for National Statistics*

Using routine administrative records to comprehensively assess the non-fatal and fatal burden of 132 conditions in Scotland
Grant Wyper - *NHS National Services Scotland*

Social Statistics: 4.4 Contributed - Record linkage and big data

Conference Room 3

Combining limited data on income tax with household surveys: A simulation-based approach for estimating income inequality in India
Sunil Kumar - *King's College London, United Kingdom*

Innovative use of census data to study variation in the health of ethnic groups: the Scottish Health and Ethnicity Linkage Study
Duncan Buchanan - *NHS National Services Scotland*

Measuring Big Data skills: Two proxy measures
Alana McGuire - *University of Stirling, United Kingdom*

Official Statistics & Public Policy: 4.8 Contributed - Brexit and foreign investment

Conference Room 4/5

UK Trade Statistics - Post-EU referendum Measurement and Analysis
Adrian Chesson - *Office for National Statistics*
Ultimate controlling parent of businesses (UCP) analysis and what it tells us about the ultimate origin of foreign direct investment (FDI)
Yanitsa Petkova - *Office for National Statistics*
Bubbles, blind-spots and Brexit
John Fry - *Sheffield Hallam University, United Kingdom*

Environmental/Spatial: 4.3 Contributed - Climate Applications

Conference Room 6/7

Modelling short time series of annual abundance indices as a function of high-dimensional weather data
David Elston - *Biomathematics and Statistics Scotland*

Reducing uncertainty in low-frequency meteorological hazards for the nuclear industry
Paul Newell - *Met Office, United Kingdom*

Nonparametric and semiparametric decomposition of time series and space-time processes, with applications to climate data
Jan Beran - *Department of Mathematics and Statistics, University of Konstanz, Germany*

Prize Winners: 4.9 Invited - Prize Winners: Young Statisticians Meeting 2017

Auditorium A

Come and hear the prize winning presentations of the Young Statisticians Meeting 2017.

Asymmetries in UK Trade Flows
Katie O Farrell - *Office for National Statistics*

Do nursing stations within bays of hospital wards reduce the rate of inpatient falls? – An interrupted time series analysis
Usama Ali - *University of Oxford*

Analysis of Network Time Series
Kathryn Leeming - *University of Bristol*

Communicating Statistics: 4.6 Contributed - Communicating and presenting statistical results

Executive Room B

Choosing the Right Angle: A Conscientious yet Pragmatic Approach to Avoiding a Fishing Expedition
Neil Spencer - *University of Hertfordshire*

When do confidence intervals and p-values give different interpretations of statistical significance? An investigation into 2x2 tables
Nick Beckley - *King's College London, United Kingdom*

09:55 – 11:15

Methods & Theory: 5.5 Invited - Papers from the Journal of the Royal Statistical Society: Networks

Auditorium A

Respondent-driven sampling bias induced by community structure in social networks
Luis Rocha - *Karolinska Institutet, Sweden*

Statistical clustering of temporal networks through a dynamic stochastic block model
Catherine Matias - *CNRS - University Paris 6, France*

Estimating whole brain dynamics using spectral clustering
Yi Yu - *University of Bristol, United Kingdom*

The papers have a common theme ('networks') in the applications that they consider to illustrate the novelty of their statistical techniques.

Organised by Martin Owen on behalf of the RSS Journal Series Editors

Data Science: 5.7 Invited - Data Science for Public Good

Conference Room 4/5

Data Science for public good - how ONS is building capability & providing new insights through data science; addressing statistical quality and ethical issues.
Peter Fullerton - *ONS, United Kingdom*

Sensing human behaviour with online data
Suzy Moat - *Data Science Lab, Warwick Business School*

The Urban Big Data Centre - Delivering a Research-Led National Data Service
Andrew McHugh - *Urban Big Data Centre, University of Glasgow*

Organised by the ONS Data Science Campus

Industry & Commerce: 5.8 Invited - Exploiting Data to Manage Complex Assets

Conference Room 1

Exploiting Data to find out where you are: A case study in applying Bayesian statistics in the marine environment

Sophie Carr - *Bays Consulting, United Kingdom*
Statistical simulation and modelling using Design of experiments and Data for New Product Development and Asset Management
Misti Paul - *Advanced Analytics*

Simulating the Statistical Performance and Perturbation Effects on a Complex Asset Fleet Maintenance Plan
Nira Chamberlain (Babcock Analytic Solutions)

Advances in technology have led to improvements in the capture, analysis and exploitation of data from complex physical assets to improve understanding of location, status and performance and drive better decision-making. This session will look at how data is being exploited to improve the operation, maintenance and development of complex assets across a range of industries.

Organised by Babcock International Group and the RSS Business & Industrial Section

Environmental/Spatial: 5.3 Invited - Developments of functional data analysis for environmental sensor data

Conference Room 2

Spatio-temporal modelling of sparse remote-sensing data
Mengyi Gong - *University of Glasgow*

Nonparametric statistical downscaling for data fusion of in-lake and remotely-sensed chlorophyll-a data
Craig Wilkie - *University of Glasgow*

Spatial variability clustering for spatially dependent functional data
Elvira Romano - *University of Naples*

Discussant: Ruth O'Donnell - University of Glasgow

Organised by Ruth O'Donnell & Claire Miller (University of Glasgow)

Social Statistics: 5.4 Invited - Sustainable Development Goals

Conference Room 3

The Sustainable Development Goals (SDGs) are a global system of targets and indicators covering everything from Poverty to Infrastructure to Peace and Justice For the first time they will cover developed countries like the UK as well as developing countries, and also look below national estimates at subgroups to ensure we "leave no one behind" in achieving this ambitious agenda.

This session will include: the story of the political process that developed this hugely ambitious agenda; the ONS' role in collecting, analysing, presenting and disseminating data for the UK; DfID's work with the UN system and least developed countries to support this global ambition and some the novel technical challenges of measuring some of the most ambitious targets.

The session will include presentations by Glenn Everett, Deputy Director of deputy director of Well-being, Inequalities, Sustainability and Environment, ONS and Kim Bradford Smith, Senior Statistics and Evidence Lead, Inclusive Societies DFID and a discussion of the contrasts between the UK and global approaches, and possible methods for some of the many open problems!

Organised by the Office for National Statistics

Official Statistics & Public Policy: 5.2 Invited - A view from Scottish Statistics

Level 1 Auditorium

Overview of the recently launched "Official Statistics Strategy for Scotland" which outlines key priority areas for official statistics in Scotland and encourages closer working between all bodies in Scotland which produce official statistics to ensure we can be greater than the sum of our parts, and join up where appropriate to capitalise on investments.

Each of the three main producer bodies will then present on recent developments within their organisations, focussing on areas like data visualisation and open data.

Speakers:

Maighread Simpson - *NHS National Services Scotland*
Gregor Boyd - *Scottish Government*
Esta Clark - *National Records of Scotland*

Organised by Scott Heald on behalf of the RSS Conference Board

Medical: 5.1 Invited - Economic evaluation in relation to infectious diseases

Executive Room B

Benchmarks of value in economic analysis: the use of cost-effectiveness thresholds
Paul Revill - *University of York*

The importance of modelling and the role of uncertainty in decision making
Andrew Briggs - *University of Glasgow*

Guidelines for health economic evaluation for prevention and therapeutic interventions for infectious diseases
Richard Pitman - *ICON Commercialisation & Outcomes*

The aim of this session is to bring together health economists and infectious disease mathematical modellers with the intention of opening a fruitful discussion.

Organised by Valentina Cambiano (UCL)

Professional Development: PD5: Research Funding

Executive Room A

Are you thinking of applying for research funding? Successful funding applicants and members of funding committees share their secrets on how funding applications work, how to write a good proposal and tips on what the committees are looking for in an applicant.

Presenters will be Dr Alison Ramage (University of Strathclyde, holder of a Leverhulme Research Fellowship), Professor Jim Nelson (Senior Group Leader at the Cancer Research UK Beaton Institute and CRUK Pioneer Award funding committee member) and Dr Jim Lewsey (University of Glasgow, Chief Scientific Office funding committee member).

Communicating Statistics: 5.6 Invited - Too much information? The risks and benefits of giving patients medical outcome statistics

Conference Room 6/7

Worldwide there is an increasing move towards allowing patients more input into the choice of medical treatment that best for them. How, then, can patients be given just the right amount of information for them, in a way that they can understand, and be given the necessary support to make decisions based on it?

The Winton Centre for Risk and Evidence Communication at the University of Cambridge is currently working on several projects tackling these issues and in this interactive session will be demonstrating some of the pitfalls and potential solutions. Speakers will be David Spiegelhalter, George Farmer and Alexandra Freeman.

11:15 – 11:45

Refreshment break - Level 2 Foyer

11:45 – 12:45

PLENARY 4

Marloes Maathuis
Main Auditorium
Professor Marloes Maathuis - ETH Zurich
Causality

Research Methods Training

2017 NCRM Quantitative Courses

Applied Multilevel Modelling, 13 – 15 September 2017, Southampton

Introduction to Spatial Analysis for Researchers, 4 – 5 October 2017, Southampton

Using the Relational Event Model (REM) to Investigate Patterns in Ordered/Timed Sequences of Actions, 9 October, Edinburgh

Multilevel Analysis of Social Network Data, 10 October, Edinburgh

Spatial Interaction Modelling, 19 – 20 October 2017, Manchester

Social Sciences and the Omics Revolution, 6 November 2017, Manchester

Introduction to Latent Class Analysis, 16 – 17 November 2017, Southampton

Web Survey Paradata, 7 December 2017, Cardiff

Designing and Implementing Mobile Web Surveys, 8 December 2017, Cardiff

To find out more about our training courses and events and to register please visit **www.ncrm.ac.uk/training**.
New courses are continuously organised and added to the database.

NCRM
National Centre for Research Methods

12:50 – 13:30

RF1: Rapid-Fire Talks

Conference Room 1

Vowel analysis for forensic speaker comparison
Tereza Neocleous - *University of Glasgow*

Larger Control Groups in Experimentation
Marie Oldfield - *United Kingdom*

Statistical methodologies and experimental designs to aid investigating anthelmintic efficacy in cattle livestock
Johnathan Love - *University of Strathclyde*

Reduction of the number of animals required in pharmaceutical experiments by prediction of the compound-specific variation in oral bioavailability estimates
Nicholas Galwey - *GlaxoSmithKline, United Kingdom*

Two new approaches for visualising fitted models in network meta-analysis
Martin Law - *Medical Research Council - Biostatistics Unit*

Back Propagation Gradient Based Neural Network Training Algorithms and Volatility Forecasting: Evidence from Nigeria
Shehu Usman Gulumbe - *Federal University Birnin Kebbi, Nigeria*

RF2: Rapid-Fire Talks

Conference Room 2

Area estimation by double-calibration of a remote-sensed feature map to fieldwork observations via manual image interpretation
Alan Brewer - *Forest Research, United Kingdom*

Predicting extreme river discharge - comparing direct and indirect modelling strategies
Adam Butler - *Biomathematics and Statistics Scotland*

What is the power to detect complex intervention effects using time-series data
Xingwu Zhou - *Karolinska Institutet*

Methods for Nonparametric Regression with Censored Responses
Zhou Fang - Biomathematics and Statistics Scotland

Bayesian nonparametric conditional copula estimation of twin data
Fabrizio Leisen - *University of Kent, United Kingdom*

Parameter Inference in Differential Equation Models using Time Warped Gradient Matching
Mu Niu - *School of Mathematics and Statistics, University of Glasgow*

RF3: Rapid-Fire Talks

Conference Room 3

Fitting Spatial Auto-Regression Models to 3-D PET Imaging Data
Jian Huang - *University College Cork*

Some simple designs for censored survival trials
Alan Kimber - *University of Southampton*

Intensive blood pressure targets in clinical trial versus primary care setting
Ilyas Bakbergenuly - *University of East Anglia*

Conveying risks in transplantation to patients
Kate Martin - *NHS Blood and Transplant*

Statistical Analysis on Longitudinal Data for the prospect of introducing a Joint Pain Advisor into the Primary Care setting of the NHS
Hira Naveed - *Kingston University and Health Innovation Network*

Can testing clinical significance reduce false positive rates in clinical trials?
Theophile Bigirumurame - *Durham University*

RF4: Rapid-Fire Talks

Level 1 Auditorium

Comparing Methods for Early Detection Systems for Seasonal and Pandemic Influenza
Muqrin Almuqrin - *University of Strathclyde*

Missing Data Analysis Under Censoring in Data Obtained from Healthcare Organisations
Kate Pyper - *University of Strathclyde*

Identifying harmful medications in pregnancy: use of a double False Discovery Rate method to adjust for multiplicity
Alana Cavadino - *Queen Mary University of London*

A comparison of seven random-effects models for meta-analysis that estimate the summary odds ratio
Dan Jackson - *MRC, United Kingdom*

A Joint modelling approach to access the association between child and adult HiV infections in Kenya, having adjusted for covariates
Elvis Karanja - *University of Nairobi*

An integrated machine learning approach of feature selection and classification of long intergenic non-coding RNA in heart failure patients
Mintu Nath - *University of Leicester*

RF5: Rapid-Fire Talks

Conference Room 4/5

Trumpets and orchestras: some thoughts on optimising public value
Elizabeth Fraser - *Scottish Government*

Estimating the number of rooms and bedrooms in the 2021 Census: An alternative approach using Valuation Office Agency data
Natalie Shorten - *Office for National Statistics, United Kingdom*

GSS Harmonisation Programme: Past, Present and Future
Ian Sidney - *Office for National Statistics, United Kingdom*

Understanding the Different Approaches of Measuring Owner Occupiers' Housing Costs
Arthur Eidukas - *Office for National Statistics*

Evidence Based Analysis for Investment Decision Support
Petros Gousias - *University of Strathclyde & Scottish Water*

What can we learn from ONS Foreign Direct Investment statistics?
Yanitsa Petkova - *Office for National Statistics*

RF6: Rapid-Fire Talks

Conference Room 6/7

Statistical simulation of longitudinal HIV viral load trajectories
Maia Lesosky - *University of Cape Town, South Africa*

Opportunities and challenges of analysing UK Biobank data
Francesca Chappell - *University of Edinburgh*

Automatic Balancing of UK Supply and Use Tables in Current Prices: 2011 to 2014
Neil Parkin - *Office for National Statistics*

Using follow-up panels as a sampling frame – what are the considerations of efficient sampling?
Andrea Lacey - *Office for National Statistics, United Kingdom*

Estimating trends in population-level HIV viral suppression from routine laboratory data
Elton Mukonda - *University of Cape Town, South Africa*

What have been the effects of tobacco control policies on advice-seeking at Swedish National Tobacco Quitline?
Nicola Orsini - *Department of Public Health Sciences, Karolinska Institutet*

Logistic modeling of mothers' attitude towards immunization in Nigeria
Akeyede Imam - *Federal University Lafia*

13:30 – 14:30

Lunch - Level 2 Foyer

14:30 – 15:30

Prize Winners: 6.7 Invited: Research Students Conference 2017

Auditorium A

Come and hear the prize winning presentations of the Research Students Conference 2017.

Development of new pain in older Irish adults: a latent class analysis of health risk factors
Aoife O'Neill - *University of Limerick*

Sequential Monte Carlo Methods for Epidemic Data
Jessica Welding - *Lancaster University*

Spatio-temporal Modelling for Road Accident Hotspot Prediction
Joe Matthews - *Newcastle University*

Medical: 6.1 Contributed - Methods in epidemiology and public health

Level 1 Auditorium

Value of Information: Sensitivity Analysis and Research Design in Bayesian Evidence Synthesis
Christopher Jackson - *MRC Biostatistics Unit, University of Cambridge, United Kingdom*

Estimating treatment effects with optimal inverse probability weighting
Michele Santacatterina - *Unit of Biostatistics - Karolinska Institutet, Sweden*

Hierarchical group testing with multiplex assays in heterogeneous populations
Chris Bilder - *University of Nebraska-Lincoln, United States*

Industry & Commerce: 6.8 Contributed - Assessing Innovation, Investment and Individualised Inference

Conference Room 1

Individualised Inference in Practice
Tim Drye - *Data Analysts User Group*

Smart Beta and Empirical Alpha Representation
G Charles-Cadogan - *University of Leicester, Division of Finance, School of Business*

A new method to calculate a corporate innovation index
Gloria Gheno - *Free University of Bozen-Bolzano*

Official Statistics & Public Policy: 6.2 Contributed - Maternity and births

Conference Room 2

'A time to be born'?
Alison Macfarlane - *City, University of London*

Variations in numbers of births by day of the week in relation to onset of labour and mode of giving birth, England 2005-2014
Peter Martin - *City, University of London*

Insights on Third Party Linkage and Data Quality from Quality Assuring Linked Birth Registrations and HES Delivery Records in England 2005 to 2014
Gill Harper - *City, University of London*

Environmental/Spatial: 6.3 Contributed - Environmental Epidemiology

Conference Room 3

Divide and conquer: Partitioning mosquito biting heterogeneity and identifying malaria hotspots for intervention
Su Yun Kang - *University of Oxford*

Bayesian hierarchical modelling of social genetic effects in livestock disease transmission
Osvaldo Anacleto - *Roslin Institute, University of Edinburgh*

Preliminary investigation of the influences on antimicrobial resistance
Katie Stewart - *University of Glasgow*

Social Statistics: 6.4 Contributed - Socio-demographics and Inequalities

Conference Room 4/5

Measuring Change Over Time in Socio-Economic Deprivation and Health in an urban context. The case study of the city of Genoa
Stefano Landi - *University of Genoa, Italy*

Gender Pay Gap Elements in the UK and Scotland
Wendy Olsen - *University of Manchester Department of Social Statistics, United Kingdom*

Multidimensionality of longitudinal data: Unlocking the age-happiness puzzle
Ning Li - *Australian Mathematical Sciences Institute, Australia*

Methods & Theory: 6.5 Contributed - Big Data

Conference Room 6/7

A Bayesian model selection approach for identifying differentially expressed transcripts from RNA sequencing data
Panagiotis Papastamoulis - *University of Manchester, United Kingdom*

Approximate posterior inference for Markov random fields with discrete states
Matt Moores - *University of Warwick*

Modelling High Dimensional Volatilities by Common Factors
Jiazhu Pan - *University of Strathclyde*

Professional Development: PD6: Statistics in the Media

Executive Room A

How can you help to improve media reporting of scientific and statistical stories? Led by Fiona Lethbridge from the Science Media Centre, this session presents a whistle-stop tour of the realities of the news media, offering a beginner's guide to some of the key issues. The speaker will go through some recent examples of statistics in the media, highlighting successes as well as common pitfalls in some relevant case studies. The session will highlight ways to get involved, how best to work with your own institution's press office and opportunities to work with the Science Media Centre – all with the aim of improving the accuracy and evidence-base of media reporting of statistical and scientific stories.

The target audience is qualified statisticians that are interested in or wary or unsure about engaging with journalists.

Medical: 6.6 Contributed - Statistics in Biology

Executive Room B

Statistical inference of the drivers of collective cell movement
Dirk Husmeier - *University of Glasgow*

Parameter Inference in the Pulmonary Blood Circulation
Mihaela Paun - *University of Glasgow*

When the microbiome meets the metabolome: An integrative longitudinal analysis of characteristic metabolic profiles concurrent with gut microbiota changes
Takoua Jendoubi - *Imperial College London*

15:40 – 17:00

Social Statistics: 7.4 Invited - 75th anniversary of the Beveridge Report

Auditorium A

Beveridge's relevance today
Frank Popham - *University of Glasgow*

The influence of welfare reform in the United States on the UK welfare state
Marcia Gibson - *MRC/CSO Social and Public Health Sciences Unit*

Welfare, poverty and benefit fraud: long term patterns and recent developments using data from the British Social Attitudes survey
Eleanor Attar Taylor - *National Centre for Social Research*

Organised by Linsay Gray (MRC/CSO Social and Public Health Sciences Unit, University of Glasgow)

Official Statistics & Public Policy: 7.2 Invited - Devolution in Official Statistics

Level 1 Auditorium

Speakers:

John Morris - *Welsh Government*
Roger Halliday - *Deputy Head of Profession for Statistics, Wales*
Siobhan Carey - *Chief Statistician, Northern Ireland*

Data Science: 7.7 Invited - Recommender systems

Conference Room 4/5

Bayesian preference learning with the Mallows rank model for explicit and implicit data
Arnoldo Frigessi - *University of Oslo*

Diversity as a Response to User Preference Uncertainty
James Edwards - *Lancaster University, United Kingdom*

From recommender systems to algorithmic decision-making
Sofia Olhede - *UCL, United Kingdom*

Recommender systems are ubiquitous on the web, suggesting products, articles, and friends to users of websites. Predicting what people would like is clearly a statistical problem, but much of the work in the area is carried out in the computer science community. This session will explore the statistical aspects of the problem.

Organised by David Leslie on behalf of the RSS Research Section

$SAGE
Publishing

Environmental/Spatial: 7.3 Invited - Dependent Functional Data

Conference Room 2

Boosting Generalized Additive Models for Location, Scale and Shape for Functional Data
Almond Stöcker - *Department of Statistics, Ludwig-Maximilians-Universität, Munich, Germany*

An Object-Oriented approach to Kriging and Uncertainty Quantification for Functional Compositional Data with Spatial Dependence
Alessandra Menafoglio - *Politecnico di Milano, Italy*

Analysis of Spatially Correlated Functional Data
Surajit Ray - *University of Glasgow*

Organised by Surajit Ray (University of Glasgow)

Industry & Commerce: 7.8 Invited - Data-Driven DoE - Using penalised regression to unify the analysis and enhance the practice of industrial experimentation

Conference Room 3

Data-Driven DOE: A Case Study
Volker Kraft - *SAS Institute / JMP Devision*

Designed experiments for interaction screening
David Woods - *University of Southampton*

Using statistically designed experiments (DoE) is the best approach to learning from data, since it can be both efficient and effective. If they exist, observational data can help to establish the experimental context, leading to a more appropriate design. However, correctly handling both observational and experimental data is difficult for engineers and technologists who are not entrenched in statistics, and this can limit the adoption and successful application of DoE. Conversely, if such users can be appropriately supported by analysis software, they can exploit more coherent cycles of learning that leverage data to the full - 'Data-driven DoE' for short.

Organised by Chris Gotwalt (JMP Division of SAS Institute)

Methods & Theory: 7.5 Invited - Recent advances in Statistical Signal Processing

Conference Room 1

A framework for stochastic process modelling of complex-valued signals
Adam Sykulski - *Lancaster University*

A spatial statistics approach to assessing signal extraction quality and defining resolution in modern optical imaging
Ed Cohen - *Imperial College London*

Statistical signal processing is an area of growing importance, with diverse signal processing applications giving rise to the development of novel statistical theory and methods. This session will showcase some of the latest research emerging in this area, also highlighting the applications which motivated the underlying work.

Medical: 7.1 Invited - Health economic evaluation studies - how to deal with missing data

Conference Room 6/7

Full Bayesian models to handle missing values in cost-effectiveness analysis from individual level data
Gianluca Baio - *University College London*

Practical sensitivity analysis framework for health economic analyses with missing data
James Carpenter - *University College London & London School of Hygiene and Tropical Medicine*

Missing data in health economic evaluation
Andrew Briggs - *Glasgow University*

Organised by Rumana Omar (UCL) and the RSS Medical Section

Professional Development: PD7: Get Involved

Executive Room A

Join us to find out how young statisticians can get more involved with the RSS and its initiatives through the following schemes:
- African Institute of Mathematical Sciences
- STEM Ambassadors
- Sections and Local Groups

Speakers will include:
- Laura Bonnett (University of Liverpool)
- Karen Facey (RSS Honorary Officer for Sections & Groups)
- Emanuele Giorgi (Lancaster University)

Communicating Statistics: 7.6 Invited - Communicating statistics via social media, technology and blended learning

Executive Room B

Reducing statistics anxiety via social media
Meena Kotecha - *The London School of Economics and Political Science, United Kingdom*

Teaching statistics to medical researchers and enabling them to teach us
Jamie Sergeant - *University of Manchester*

Teaching statistics for OR and Finance to Post-graduate using VLE such as Blackboard
Vesna Perisic - *University of Southampton*

This session will demonstrate innovative ways to teach statistics using social media, technology and blended learning.

It will focus on university statistics courses designed for students reading a range of disciplines.

The session should be of interest to academics involved in teaching statistics, education researchers and all interested in the theme.

Organised by Meena Kotecha (LSE)

17:00 – 17:20

Refreshment break - Level 2 Foyer

17:20 – 17:50

PLENARY 5A

A tribute to Hans Rosling
Main Auditorium

18:00 – 19:00

PLENARY 5B

Have I got Stats for You!
Main Auditorium

Inspired by a similarly named TV show, and with rounds taken from other much loved quiz shows, join us and our lovely panel of experts as we delve into a stack of questions around statistics from the past year.

Organised by the RSS Young Statisticians Section

Pub Quiz Night - Bar Home, 80 Albion Street, Glasgow, 1NY

PUB QUIZ NIGHT

Wednesday 6th September, from 8pm

Venue:
Bar Home, 80 Albion Street, Glasgow, 1NY

All welcome!

Come and enjoy a few casual drinks with fellow attendees and try your hand at our general knowledge quiz – prizes on offer and free drinks vouchers for all participants!

Teams will be arranged on the night – arrive by 8:30pm to register on a team

Event organised by the **Young Statisticians Section** (YSS) and generously supported by **ATASS Sports**

YSS
YOUNG STATISTICIANS SECTION

atass sports

THURSDAY
7 September

09:00 – 10:00

Prize winners: 8.8 Invited - Statistical Excellence Award for Early-Career Writing

Auditorium A

A special session in which the three finalists for the Statistical Excellence Award for Early-Career Writing will deliver presentations based on their articles.

When truth overshadows power
Levon Demirdjian - *UCLA Statistics*

(Video presentation)
We, the millennials: The statistical significance of political significance
Kevin Lin - *Carnegie Mellon University*

(Video presentation)
A time to kill: Great British serial killers
Charlotte Moragh Jones-Todd - *a research assistant from New Zealand*

Featuring a special guest presentation on 'Engaging with the Media' from Robert Cuffe, former RSS Statistical Ambassador and the new Head of Statistics at BBC News.

Organised by the RSS Young Statisticians Section and Significance Magazine

Medical: 8.1 Contributed - Epidemiology and infectious disease modelling

Level 1 Auditorium

Comparison of statistical algorithms for the detection of outbreaks in syndromic surveillance systems
Roger Morbey - *Public Health England*

Estimating the force of infection of blood-borne viruses in people who inject drugs: key risk factors and frailty
Ross Harris - *Public Health England*

Assessing the impact of a temporary class drug order on ethylphenidate-related infections among people who inject drugs: an interrupted time-series analysis
Alan Yeung - *Health Protection Scotland*

Data Science: 8.7 Contributed - Applications and Methodology

Conference Room 4/5

Methods for compiling price indices from web scraped clothing data
Chris Payne - *Office for National Statistics*

Thoughts, Ruminations, and Twitter-ready soundbites on Data Science, Big Data, and Social Science Research
Craig Hill - *RTI International, United States*

Predicting the Results of the 2016 US Presidential Election
Timothy Martyn Hill – *LV*

SAGE Publishing

Official Statistics & Public Policy: 8.2 Contributed - Money matters

Conference Room 2

#FlowofFunds - understanding how money moves
Richard Campbell - *Office for National Statistics*

Small Area Estimation of Fuel Poverty in England
Katie Allison - *Department for Business, Energy & Industrial Strategy*

Economic statistics classifications; are they a road block to infrastructure investment?
Derek Bird - *Office for National Statistics*

Environmental/Spatial: 8.3 Contributed - Environmental behaviour and forecasting

Conference Room 3

A non-homogenous Poisson model with spatial anisotropy and change-points: an application to ozone data
Eliane Rodrigues - *Universidad Nacional Autonoma de Mexico (UNAM), Mexico*

Cross-National Comparisons on Pro-Environmental Behaviours – A Multilevel Modelling Approach
Vivian Hiu Tung So - *University of Southampton, United Kingdom*

Probabilistic Energy Forecasting and Applications
Jethro Browell - *University of Strathclyde, United Kingdom*

Applications of Statistics: 8.4 Contributed - Applications of Statistics

Conference Room 1

Statistical modelling of cell movement data using the unscented Kalman filter
Diana Giurghita - *University of Glasgow*

Hidden Markov Models for Monitoring Circadian Rhythmicity in Rest-Activity Data
Qi Huang - *University of Warwick, United Kingdom*

Statistical Signal Processing: Applications in image denoising
Varuna De Silva - *Loughborough University, United Kingdom*

Methods & Theory: 8.5 Contributed - Longitudinal & Causal Models

Conference Room 6/7

Singular Linear Models for Longitudinal Data
Daniel Farewell - *Cardiff University, United Kingdom*

A testing strategy for choosing between estimation methods for random effects models
Daniela Bond-Smith - *Centre for Genetic Origins of Health and Disease, University of Western Australia, Australia*

On Causal Estimation using U Statistics
Lu Mao - *University of Wisconsin-Madison, United States*

Professional Development: PD8: Statistics in the Media

Executive Room A

How can you help to improve media reporting of scientific and statistical stories? Led by Fiona Lethbridge from the Science Media Centre, this session presents a whistle-stop tour of the realities of the news media, offering a beginner's guide to some of the key issues. The speaker will go through some recent examples of statistics in the media, highlighting successes as well as common pitfalls in some relevant case studies. The session will highlight ways to get involved, how best to work with your own institution's press office and opportunities to work with the Science Media Centre – all with the aim of improving the accuracy and evidence-base of media reporting of statistical and scientific stories.

The target audience is qualified statisticians that are interested in or wary or unsure about engaging with journalists.

Medical: 8.6 Contributed - Bioinformatics

Executive Room B

Learning from our mistakes: Using sequencing errors to infer precision in mutation validation experiments.
Andy Lynch - *University of Cambridge (University of St. Andrews [from June 2017])*

A Random Effects Model for the Identification of Differential Splicing (REIDS) Using Exon and HTA Arrays
Marijke Van Moerbeke - *Hasselt University, Belgium*

Identification of transcript regulatory patterns in cell differentiation
Arief Gusnanto - *University of Leeds, United Kingdom*

10:10 – 11:10

PLENARY 6

Barnett Lecture
Main Auditorium

Chair: Professor Peter Guttorp - Norwegian Computing Center, Oslo
Are you sure we want to do this? Sea level adaptation decisions under uncertainty.

11:10 – 11:40

Refreshment break - Level 2 Foyer

11:40 – 13:00

Official Statistics & Public Policy: 9.2 Invited - Challenges and insights into Small Island Statistics

Auditorium A

This session will provide insights into some of the challenges associated with the production of small island statistics from around the world. Contributions from:

Paula McLeod (Department for International Development) - "St Helena - statistics from one of the worlds most isolated islands"

Margaret Mackin (NHM Western Isles/NHS National Services Scotland) - "Life as a statistician in one of Scotland's island health boards"

Ally McAlpine (Scottish Government) - "A perspective on island demographics from the Scottish Index of Multiple Deprivation"

Data Science: 9.7 Invited - Tools that Statisticians need to work as a Data Scientist

Conference Room 4/5

Data Science: Engaging with the Business
Richard Pugh - *Mango*

What does a statistician need to know about machine learning?
Aimee Gott - *Mango Solutions*

All the other things a data scientist needs to know
Matthew Upson - *Government Digital Service*

Organised by the RSS Data Science Section

SAGE Publishing

Industry & Commerce: 9.8 Invited - Financial Risk modelling

Conference Room 1

Accounting for heterogeneity and macroeconomic variables in the estimation of transition intensities for credit cards
Jonathan Crook - *Credit Research Centre*

Default contagious risk assessment though space-time point processes
Giada Adelfio - *Università di Palermo, Italy*

Spatial contagion in mortgage defaults: a Bayesian survival approach
Raffaella Calabrese - *Business School University of Edinburgh*

Organised by the RSS Business & Industrial Section and OR Group of Scotland

Environmental/Spatial: 9.3 Invited - Water-Energy-Food

Conference Room 2

Securing a sustainable supply of water, energy and food for all is a key global issue. This session will address the challenges of understanding and hence identifying the dynamic, interlinked inter-dependencies across(water, waste, energy and food, at multiple, nested scales (local, regional and national).

Assessing the utility of composite indicators in analysing the water-energy-food nexus
Scott McGrane - *University of Glasgow, United Kingdom*

Water, Energy, Food (WEF): Computational Modelling and Interactive Visualisation
Ruth E. Falconer - *School of Design & Informatics, Abertay University, United Kingdom*

Decision support for UK food poverty using coherent inference in integrating decision support systems
Martine Barons - *University of Warwick*

Organised by Marian Scott (University of Glasgow)

Applications of Statistics: 9.4 Invited - Soccer analytics - what's it all about?

Conference Room 3

This sessions is presented by three speakers who have pioneered the use of statistical analysis in professional football.

Omar Chaudhuri - *21st Club*

Ted Knutson - *Statsbomb Services*

Rory Campbell - *West Ham United*

Organised by the RSS Statistics in Sport Section

Methods & Theory: 9.5 Invited - Large scale inference and modern applications

Level 1 Auditorium

Methods of network comparison
Sofia Olhede - *UCL, United Kingdom*

Testing One Hypothesis Multiple Times
Sara Algeri - *Imperial College London, United Kingdom*

Covariance change point in high dimensional settings
Yi Yu - *University of Bristol, United Kingdom*

Organised by Heather Battey (Imperial College London)

Medical: 9.1 Invited - Statistical Causal Inference

Conference Room 6/7

Causality in Statistics
Robin Evans - *University of Oxford, United Kingdom*

Data-adaptive estimation of high-dimensional mediated effects
Rhian Daniel - *Cardiff University, United Kingdom*

Detecting and correcting for pleiotropic bias in Mendelian randomization using gene-covariate interactions
Jack Bowden - *University of Bristol*

Organised by Robin Evans (University of Oxford)

Professional Development: PD9: Using Geography to tell the Story of Statistics

Executive Room A

Exploring ways to leverage the power of location to aid the communication and understanding of statistical data to inform policy and decision making.

Organised and presented by ESRI UK

Communicating Statistics: 9.6 Invited - STEM showcase: Showcasing Statistics Outreach & Public Engagement Activities

Executive Room B

Getting hands-on with statistics: ideas without numbers
Simon White - *MRC Biostatistics Unit, United Kingdom*

STEM: A Strathclyde Perspective
Johnathan Love - *University of Strathclyde*

Penguins, Playing Cards, and Statistics Engagement
Laura Bonnett - *University of Liverpool*

The session will present examples of effective and engaging statistical activities that have been developed and run in schools. It will be relevant to both early career statisticians and those interested in becoming STEM ambassadors and/or volunteering in schools.

Organised by the RSS Education Committee and Young Statisticians Section

13:00 – 14:00

Lunch - Level 2 Foyer

14:00 – 15:00

Prize winners: 10.9 Invited - Prize winners: Young Statisticians Meeting 2016

Auditorium A

Come and hear the prize winning presentations of the Young Statisticians Meeting 2016

Avoiding pitfalls when combining multiple imputation and propensity scores
Emily Granger - *University of Manchester*

Applying quantitative bias analysis to estimate the plausible effects of selection bias in a cluster randomised controlled trial: a secondary analysis
Lauren Barnett - *Keele University*

Title TBC
Sarah Lasher - *Department for Transport, UK*

Medical: 10.1 Contributed - Biostatistics

Level 1 Auditorium

Longitudinal analysis strategies for high-dimensional phenotypes
James Staley - *University of Bristol*

Bayesian modelling of disease evolution in musculoskeletal epidemiology
Amelia Green - *University of Bath*

Probabilistic deconvolution of microarray data using a hierarchical Bayesian model
Daniel Kennedy - *Queensland University of Technology (QUT), Australia*

Methods & Theory: 10.7 Contributed - Linear Models

Conference Room 1

Focussed model averaging in generalised linear models
Chuen Yen Hong - *Department of Mathematics and Statistics, University of Otago, NZ*

Identifying variables underlying multicollinearity
Zillur Shabuz - *Open University, United Kingdom*

Optimal Design, Lagrangian and Linear Model Theories: a Fusion.
Ben Torsney - *University of Glasgow, Scotland*

Official Statistics & Public Policy: 10.2 Contributed - Methodology

Conference Room 2

Back to the Source: the realities of data collection
Daria Gromyko - *HMRC*

Ecological inference with distribution regression: kernel methods to model voting patterns in US presidential elections with individual-level demographic data
Seth Flaxman - *Oxford*

Seasonal Adjustment Components for Time Series: An Alternative Estimate for Excess Winter Mortality
Atanaska Nikolova - *Office for National Statistics*

Environmental/Spatial: 10.3 Contributed - Spatial Statistics

Conference Room 3

On some local estimation problems in large scale spatial data analysis
Sucharita Ghosh - *Statistics Lab, Swiss Federal Research Institute WSL, Birmensdorf, Switzerland*

Detecting Change: Development of a new tool for spatially explicit power analysis
Lindesay Scott-Hayward - *University of St Andrews, United Kingdom*

Age-Period-Cohort Analysis Using Spatially-varying Coefficients With Application to U.S. Mortality, 1999-2015.
Pavel Chernyavskiy - *National Cancer Institute/National Institutes of Health, USA*

Applications of Statistics: 10.4 Contributed - Applications of Statistics

Conference Room 4/5

The Type Ia Supernova Color-Magnitude Relation and Host Galaxy Dust: A Simple Hierarchical Bayesian Model for Cosmology
Kaisey Mandel - *Harvard University*

Joint modelling of financial and economic cycles: Recent research findings with an application to the Euro area
Dan A. Rieser - *European Commission*

Effects of national housing quality standards on hospital emergency admissions: a quasi-experiment using data linkage
Damon Berridge - *Swansea University Medical School, United Kingdom*

Methods & Theory: 10.5 Contributed - Bayesian Inference

Conference Room 6/7

Eliciting and specifying multivariate prior distributions using vines
Kevin Wilson - *Newcastle University, United Kingdom*

Inference in complex systems using multi-phase MCMC sampling with gradient matching burn-in
Alan Lazarus - *University of Glasgow*

On choosing mixture components via non-local priors
Jairo Alberton Fuquene Patino - *University of Warwick*

Industry & Commerce: 10.8 Contributed - Trains, Job quality and Data Scientists

Executive Room A

Solving the Location Problem to Enable Rolling Stock Fault Analysis and Key Performance Indicator Creation Using Statistical Modelling
Nick Wray - *Peak Statistics*

Estimating job quality using a 'Page Rank' algorithm
Paul Jones - *Leeds Beckett University*

The role of a Data Scientist: An Industry Perspective
Wayne Jones - *Shell, United Kingdom*

Communicating Statistics: 10.6 Contributed - Communication of statistics with data visualisation

Executive Room B

Teaching basic statistics for social worker students, using Learning-by-doing pedagogy.
Ingrid Svensson - *Department of Statistics, Umeå University*

Markov Processes: Dynamic visualizations to enhance student understanding
Stephanie Budgett - *University of Auckland, New Zealand*

Online automated assessment using R
Deirdre Toher - *University of the West of England, United Kingdom*

15:10 – 16:30

Medical: 11.1 Invited - Recent advances in pharmacovigilance and pharmacoepidemiology: session in honour of David Finney

Auditorium A

David Finney: A Man for all Seasons
Ivor Ralph Edwards - *Uppsala Monitoring Centre*

Delivering new evidence and risk prediction tools to support safer use of medicines through real world data analytics
Marion Bennie - *University of Strathclyde*

WOSCOPS 20 year follow-up data of participants and screenees
Colin McCowan - *University of Glasgow*

This session will highlight recent advances in pharmacovigilance and pharmacoepidemiology in the era of electronic health records and data linkage. This session will demonstrate how David's seminal work has influenced practice today and how the pharmacoepidemiology field is developing in both a clinical trial and observational setting.

Environmental/Spatial: 11.3 Invited - Novel statistical approaches applied to geospatial health

Conference Room 2

Use of spatial analysis in public health: passive and active surveillance to define spatial heterogeneity of infectious diseases
Donal Bisanzio - *University of Oxford*

Widening statistical participation in combatting Neglected Tropical Diseases under conditions of global change and uncertainty
Mark Booth - *Durham University*

Bayesian Disease Mapping and Dynamic Surveillance Designs
Annibale Biggeri - *University of Florence*

This session will cover novel statistical approaches in studying spatial heterogeneity of infectious and parasitic diseases. The speakers will talk about the use of spatial analysis in planning control and surveillance of emerging and non-emerging diseases. They also will show statistical methods applied to different setting at different geographical scales.

Organised by GnosisGIS

Industry & Commerce: 11.8 Invited - Financing companies

Conference Room 6/7

Simultaneity of Bank Risk and Return
Sean Harkin - *University of Edinburgh*

Small datasets – Analyses & Strategies in Corporate Banking
Michelle Greenidge - *MLG STATISTICAL SERVICES*

Applying Airline Optimization Modeling to Finance Companies
William Fite - *Cahokia Point*

Organised by the RSS Business & Industrial Section and the OR Group of Scotland

Data Science: 11.7 Invited - Facilitating research use of administrative data

Conference Room 4/5

ADRN: supporting access to functionally anonymised linked administrative microdata
Elaine MACKEY - *University of Manchester*

Synthetic data in practice: software, applications and challenges
Beata Nowok - *University of Edinburgh, Administrative Data Research Centre - Scotland (ADRC-S), Scotland*

Synthetic data as a method for protecting confidentiality
Robin Mitra - *University of Southampton*

Organised by the RSS Emerging Applications Section

◎SAGE
Publishing

Applications of Statistics: 11.4 Invited - Best of MathSport International

Conference Room 3

Detecting Tennis Match-Fixing in In-Play Markets
Oliver Hatfield - *Lancaster University*

On scoring rates and competitive balance in international rugby union
Philip Scarf - *University of Salford*

The Nappy Factor in Golf: The Effect of Children on the Sporting Performance of Professional Golfers
Tony Syme - *University of Salford*

Organised by the RSS Statistics in Sport Section

Official Statistics & Public Policy: 11.2 Invited - Trust in Official Statistics

Level 1 Auditorium

Ian Simpson *(NatCen)*
"Measuring trust in official statistics: findings from the British Social Attitudes survey of 2016"

Job de Roij *(Office for Statistics Regulation, UK Statistics Authority)*
"Office for Statistics Regulation - the next phase for regulating official statistics in the UK, including a refreshed Code"

Roger Halliday *(Chief Statistician & Head of Performance, Scottish Government)*
"Producer perspective"

Discussants:
Iain Wilton *(Director of Policy and Public Affairs, Royal Statistical Society)*
"Views from the RSS"

Deana Leadbetter *(Statistics User Forum / representatives of users)*
"Views from Users"

Organised by the RSS Official Statistics Section

Professional Development: PD10: Advanced R programming: apps and packages

Executive Room A

Presenters:
  - Charalampos Chanialidis *(University of Glasgow)*
  - Colin Gillespie *(University of Newcastle & jumpingrivers.com R Training and Consultancy)*

16:30 – 16:50

Refreshment break - Level 2 Foyer

16:50 – 17:50

PLENARY 7

Significance Lecture
Main Auditorium

Presented by: Roberto Trotta - Imperial College London
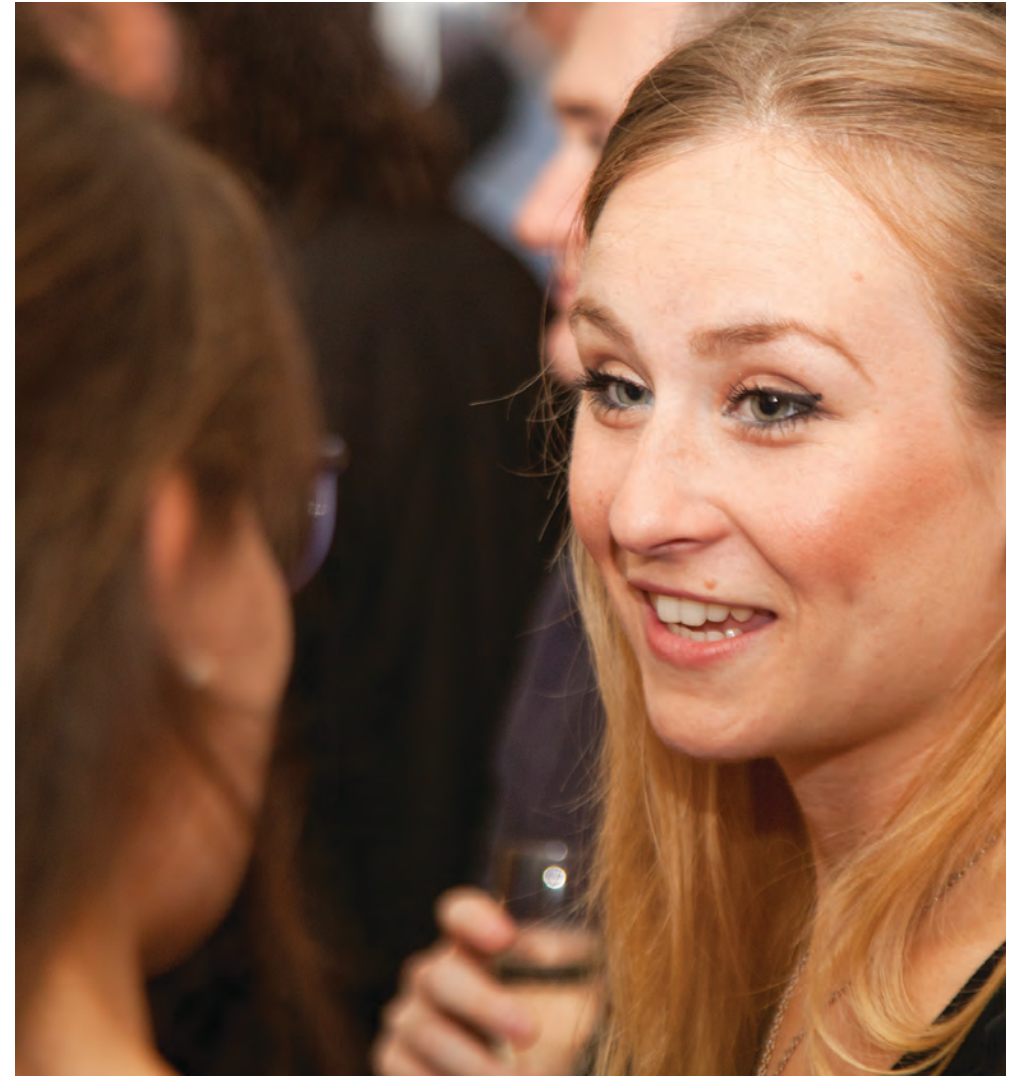If You Don't need (Astro)Statistics, You Have Done the Wrong Experiment

17:50 – 18:00

Close of Conference - Main Auditorium

19:30 – 23:30

Conference Dinner & Ceilidh - Old Fruitmarket

MANGO
SOLUTIONS

Learn the practical applications of Data Science with Mango

Why choose Mango for your training needs?

- Our trainers are experienced Data Scientists
- We offer flexible training solutions globally
- We can train you in R, Python, Statistics and Machine Learning, and much more

To find out more about our training courses or to find a solution for your training requirements, please contact the Mango Training Team.

📍 2 Methuen Park, Chippenham, Wiltshire, SN14 0GB UK

@ training@mango-solutions.com

📞 +44 (0)1249 705 450

💻 mango-solutions.com

in mango-solutions

f mangosolutionsltd

🐦 MangoTheCat

Thanks and acknowledgements for those responsible for organising the conference:

Members of the RSS Conferences & Events Programme Board

Chair (Honorary Officer for Conferences & Events)**: Kim Kavanagh** (University of Strathclyde)

Vice-Chair (2017 Programme Chair): **Scott Heald** (NHS Scotland)

Vice-Chair (2018 Programme Co-Chair): **Daniel Farewell** (University of Cardiff)

Mark Briers (Alan Turing Institute/Emerging Applications Section)

Ruth Dundas (University of Glasgow/Glasgow Local Group)

Axel Gandy (Imperial College London/Research Section)

Linsay Gray (University of Glasgow/Glasgow Local Group)

Sara Hilditch (University of Sheffield/Sheffield Local Group)

Claire Miller (University of Glasgow/Glasgow Local Group)

Richard Pereira (Office for National Statistics)

Sarah Nevitt (University of Liverpool/Young Statisticians Section)

Bex Newell (Department for Business, Energy & Industrial Strategy)

Jen Rogers (University of Oxford/RSS Vice-President for External Affairs)

Neil Spencer (University of Hertfordshire/Business & Industrial Section/Statistical Computing Section)

Michelle Stanton (Liverpool School of Tropical Medicine)

RSS Staff and stewards

Paul Gentry (conference manager), **Tessa Pearson** (registration manager), **Kamila Buczek** (web & multimedia), **Mawreen Chapman** (speaker coordinator), **Joanna Ratajczak** (poster coordinator), **Kerry Dyus**, **Sara McDonnell** and fellow staff at the **Royal Statistical Society**.

Also thanks to lead volunteers **Sara Hilditch**, **Sarah Nevitt**, **Maria Sudell** and **Lucy Teece**, and volunteers **Craig Alexander**, **Yoana Borisova**, **Kevin Brosnan**, **Fergus Christie**, **Elizabeth Fraser**, **Mengyi Gong**, **Johnathan Love**, **Rob Mastrodomenico**, **Marnie McLean**, **David McLernon**, **Kate Pyper**, **Jen Rogers**, **Suzy Whoriskey** for their help with stewarding.

Production

Tracy Pickering at tgcreative (www.tgcreative.co.uk) for publication design

Richard Leafe at D2 Printing Ltd (www.d2printing.com) for production

Clive Sherlock for photography (www.clivesherlock.com)

Kim Wilson at Atanto Ltd (www.atanto.com) for the conference app

Venues

Liam Bedwell and colleagues at the Technology & Innovation Centre, University of Strathclyde for the main conference and poster reception.

Ann Townsley and **Laura Lambert** at Glasgow City Council and Morven Crichton at Cordia for the Civic Reception.

Laura Sweeten and colleagues at the Old Fruitmarket for the conference dinner.

Karla Cunningham and colleagues at Glasgow Convention Bureau for venue sourcing, site visit coordination, and for the accommodation booking service.

ROYAL STATISTICAL SOCIETY

DATA | EVIDENCE | DECISIONS

Royal Statistical Society 12 Errol Street, London EC1Y 8LX
020 7638 8998 I conference@rss.org.uk I www.rss.org.uk