A word from the Head of Department

The department has always had news --- and now we have our first newsletter! We want this regular publication to be interesting to everyone associated with Warwick Statistics, whether you are here currently or were here years ago. So, please do send in anything that others might find interesting --- be it news of people or events, short feature articles, suggested features, or anything else! I hope that you will enjoy the newsletter.

David Firth, June 2013

Our PhD students attended the 49th Gregynog Statistical Conference in April – see next page for further details.

Turnitin and submitting your thesis

Turnitin is source matching and plagiarism detection software used in 80% of UK universities – this includes Warwick. It is used to compare electronic submissions of work with known sources such as journal papers, essay banks, books, and even other students’ work. It then produces a report which indicates text matched to known sources, and outputs the percentage of matched text. The report can then be used to manually check the submitted work for correct referencing.

For PhD students, you will usually first encounter Turnitin when submitting your thesis. Before your viva can be arranged, your thesis submission must be passed through Turnitin by a central University team. Turnitin is crude in that it does not differentiate between correctly sourced and plagiarised material. Thus for example if your thesis significantly matches papers that you have published then a high percentage figure will be outputted by the software. This has been known to cause delays in completing the final stages of your PhD.

In order to speed up the process, the department has access to the Turnitin software, and it is recommended that students run their thesis submission through the software locally first. This is currently performed by a member of the admin team, although access may be extended to research students at some point. Viewing the report locally allows for legitimate reasons for high percentages to be communicated to the relevant central University team at the same time as the thesis is submitted, hopefully avoiding lengthy delays.

For further information, The Warwick Graduate School has an FAQ on thesis e-submissions and IT Services has an FAQ on Turnitin specifically. If you still have questions feel free to come and find me and hopefully I can either answer your question or point you in the right direction.

Nat Shiers

COMPETITION

If you are representing the Statistics Department at an overseas conference, why not take a photo and submit a short article. The best photo will receive either a book token or a bottle of Champagne. This edition’s winner is Dr Anjali Mazumder, RISCU.

The photo was taken on 8 February 2013 when Anjali attended Canada's National DNA Databank Advisory Committee meeting, a committee to which she was appointed by the Minister of Public Safety in October 2012.
Congratulations to Murray Pollock and Helen Ogden who start work on the I-Like project on 1st October and 1st November 2013 respectively. They can be found in office C0.03.

49th Gregynog Conference

Staff and PhD students recently attended the 49th Gregynog Conference at Gregynog Hall, Wales held jointly with the Universities of Aberystwyth, Bangor and Swansea. The central theme of the conference was a series of talks given by Prof. Simon French (Warwick) in which he explored how to deal with “Deep Uncertainty” in the context of statistical modelling. Further talks on related aspects of uncertainty were given by Prof. Alan Hawkes (Swansea), Dr. Sofia Massa (Oxford) and Prof. Tony O’Hagan (Sheffield). Additionally, Dr. Eilir Jones (BBC Wales) gave an entertaining talk on ”Estimating Media Audiences” in which we discovered that over half of the Welsh population tuned in to watch Wales defeat England in the recent 6 Nations! But not everything was about research - everyone had time to enjoy the scenic surroundings of Gregynog Hall, Powis Castle and of the course the traditional cake, Welsh ales and giant Jenga!

- Cata, Lorna, Murray
New starters

Dr Elisabetta Candellero joins us on 1/9/13
Dr Partha Dey, 12/8/13
Dr Mark Fiecas, 1/9/13
Dr Vicky Henderson, 1/9/13
Professor Chenlei Leng, 22/7/13
Chris Oates, 1/9/13
Dr David Rossell, 15/7/13
Dr Terry Soo, 17/6/13

Welcome to Siobhan Flood, as our Undergraduate Support Officer (temp).
Siobhan joined the department in May, and has previously worked within the University at the Institute of Education. Welcome to the team!

Wolfson Research Merit Award

Professor Hutton was awarded a Wolfson Research Merit Award; these awards are given to respected UK scientists of outstanding achievement and potential. Professor Hutton was recognised for her development of statistical models for medical research, patient care and decision-making.

Her statistical expertise is used to help answer difficult questions raised by healthcare workers and patients. For example, she provides international reports on life expectancy of people with cerebral palsy, and those who suffered brain injury in accidents. She has helped to improve understanding of effective drug treatments for epilepsy.

Anne Watt, our Journals Assistant, celebrates 20 years’ service with the University on 12th June 2013.

Anne joined us in December 2010 and also works part-time in the Library.

Professor John Aston:

Congratulations to John on his recent promotion.

Gareth Roberts elected as a Fellow of the Royal Society

Professor Gareth Roberts, whose research on advanced methods in computational statistics is enormously influential, has been recognised by the Royal Society through election as a Fellow. To read the full article http://royalsociety.org/about-us/fellowship/new-fellows-2013/

The STARS of Warwick Awards are awards that are run by students, nominated by students and have the winners decided by students. Right from deciding categories to nominating and presenting awards, it is a completely student-led process. The winners were announced at an awards ceremony on the 5th March in Rootes Chancellors Suite. One of the 12 winners was our very own Heather Humphries.

Most Inspiring Academic – Heather Humphries (Statistics)
Heather retires from teaching at the end of September 2013 and we wish her well for the future.

On my way!

I went to graduate school at the University of British Columbia. Subsequently, I was a postdoctoral fellow at the University of Victoria. My research interests include probability and ergodic theory, cooking, and weight training, which may or may not be obvious from my physical appearance.  

Terry Soo
Where are they now?


Jen tells me she is filming for the BBC on Saturday 25th May. A new series that's going to be airing in July called Long Live Britain. She’ll let us know when it comes to air.

Congratulations to Dr Martin Klimmek of the Mathematical Institute, Oxford

Congratulations to Dr Martin Klimmek of the Mathematical Institute, Oxford (Warwick Statistics PhD March 2012) for being awarded the 2012 Nicola Bruti Liberati Prize by the Department of Mathematics of Politecnico di Milano and the Bachelier Finance Society in cooperation with Springer.

This prestigious prize is a recognition of the excellent quality of Martin's PhD thesis.

Congratulations to the following students on the successful completion of their PhD

Javier Rubio supervised by Professor Mark Steel – Modelling of Kurtosis and Skewness: Bayesian Inference and Distribution Theory

Alex Thiery supervised by Professor Gareth Roberts – Scaling Analysis of MCMC Algorithms

Emmanuel Ogundimu supervised by Professor Jane Hutton – On Sample Selection Models and Skew Distributions

Hasinur Khan supervised by Dr Ewart Shaw – Variable Selection and Estimation Procedures for High Dimensional Survival Data

Good luck to Christopher Nam for his PhD viva on the 11th July.

Careers Lecture

On May 8th, the department ran a careers session for undergraduate and MSc students. There were three talks given by John Young, an energy forecasting analyst at National Grid, David Sheffield of the Safety and Environmental Assurance Group at Unilever, and Sarah Graham of the Applied Sciences Group at Lubrizol. All talked about their work and the challenges they face in their companies. David and Sarah are Warwick alumni. Sarah, who completed her MSc last autumn, focused a little on the transition from student to professional life.
RISCU advises MHRA and teaches risk communication

The Risk Initiative and Statistical Consultancy Unit (RISCU) is one of the foci of the Department which promotes, advises and conducts research in the application of statistical methods, risk and decision analysis and probability. Primarily this takes the form of providing consultancy services across the private, public and NGO sectors. The unit has a role in other forms of engagement: partnering in multi-disciplinary research projects with other organisations and University departments, supporting the application of probability, risk and statistical theory in other disciplines, executive and continued professional development, other knowledge transfer activities and the promotion of the Department’s research and professional interests. So what have we been doing recently?

About two years ago the issue of PIP Breast Implants appeared in the news: a French manufacturer had used an unlicensed poorer quality silicone in making implants which had been in use in cosmetic and reconstructive surgery for some years. Within the UK, the Medicines and Healthcare Products Regulatory Agency (MHRA) is the government body responsible for regulating and licensing such products, but much regulation is shared across Europe with different country agencies taking responsibility for different products. In this case German and French agencies acted on behalf of all EU countries, so the MHRA was not directly responsible; but, naturally, it was closely involved in advising the government and the public. Once the furor of the issue had died away, internal discussions within the MHRA revolved around how it might develop and maintain public confidence. Obviously doing a ‘good job’ is central to that but with all risk management and regulation there is potential for product failures however good the regulation: What could they do to maximise the trust and confidence that the public have in their regulation? They engaged RISCU on a project to identify good practice and programmes of R&D which could enhance public confidence.

In February we presented a report that drew on a range of techniques and literatures from risk and knowledge management to suggest a programme of work within MHRA over the coming years. [Aside: on a historical note, Jim Smith and Simon French did something similar over a decade ago when the Food Standards Agency was set up.]

RISCU has also been building links with the International Institute of Risk and Safety Management (IIRSM). This led to our giving a one day continued professional education seminar for IIRSM on Risk Communication. The forum, held in London at the end of January, had the objective of sensitising participants to the range of issues that make risk communication so difficult and offering guidance on communicating risks in a balanced fashion. The day was very successful, one of the best attended training forums run by IIRSM and plans are underway to repeat the session later in the year.

These are just two of the activities that RISCU has been engaged with. We have also run small statistical consultancy projects for the Food and Environment Research Agency and the UK National External Quality Assessment Scheme for Haematinic Assays (UKNEQAS); we are working with the University’s Learning and Development Centre to provide statistical training and support for early career researchers in other departments; and we have an EPSRC research project on nuclear emergency management.

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Are Chain Event Graphs useful to model or manage chronic disease?

This is the question Prof. Jane Hutton and Prof. Jim Smith were awarded at NIHR grant to investigate. As part of that process, workshops with experts in the field were planned. One of the diseases selected as an exemplar was Diabetes and two workshops were held in late March and early April bringing together patients, clinicians and statisticians with interest and expertise in Diabetes.

We had two patients who told us how they had been diagnosed, the effect a diagnosis had on their thinking and lifestyle and the benefit of experience for understanding and managing their condition. They gave a personal perspective on the unresolved questions which have a direct impact on people with Diabetes. We also had questions sent in by members of Warwick staff with Diabetes in close family members.

We had a number of clinicians, all of whom had research interests relating to knowing how they can prescribe the best course of action for the wellbeing of their patients, and accommodate differences between individuals. Diabetes co-morbidities featured strongly, and the risk – benefit trade off of various treatment options for quality of life. They introduced the research work they had done and would like to do.

We also had a number of statisticians working in a wide variety of fields within Diabetes research, developing risk models, models for disease prevalence, economic modelling, the use of routine data, registry data, design and analysis of clinical trials, composite trial outcomes and work across international boundaries.

In the afternoon, G.P. academic Roger Gadsby gave a longer presentation on the apparent conflicts between clinical trial results and results from the analysis of large databases, and led a discussion on this the quality of evidence. Then Jim introduced Chain Event Graphs, and gave some illustrations of medical uses and Lorna Barclay (pictured right) presented some work she has published using chain event graphs on public health data.

Some participants intend to propose a standard for reporting the quality of routine administrative data used in research articles, for example, amount and nature of missing data. Jim will mentor two Leicester statisticians who will explore and compare CEGs and logistic regression in Diabetes research. Jim and Jane will discuss a joint project to monitor the quality control of data from multi-country trials with the Deputy Director of the Diabetes Trials Unit, Oxford.

There is scope for 4th year projects in collaboration with the medical school with data already available in the human metabolism research unit, with scope for ‘speed dating’ to match students to projects. There is enthusiasm for comparing Scottish and English data to assess the impact of both methodological and substantive findings and there is potential for adding value to clinical trial data by using routine data for longer follow-up.

These workshops were both enjoyable and productive, giving rise to a great many directions for future research, some of which are being actively pursued.
RISCU Update

So what is on the horizon for RISCU? One of the areas that RISCU and the Department are also involved in is probability, statistics and the law. [Jim Smith sits on the RSS working group on statistics and the law, and Anjali Mazumder has been appointed by Canada’s Minister of Public Safety to sit on the National DNA Data Bank Advisory Committee.] RISCU has recently been awarded a Warwick’s Institute of Advanced Study (IAS) European Frontiers Grant to deliver a two day meeting entitled ‘Science meets Justice: statistics at the interface’. The IAS meeting will be linked to a CRISM workshop focusing on the development and application of Bayesian inference, expert systems and likelihood methods in the evaluation of scientific evidence for the courts. The meeting and workshop (to be held later in 2013) aims to draw together researchers from leading EU academic institutions, practitioners and policy-makers across statistical, legal, forensic, scientific and policing communities to establish research networks, develop statistical methods and advance best practices in the evaluation of scientific evidence and strengthen communication and knowledge capacity across sectors. RISCU has many projects and initiatives on the move which reflect the multi and inter-disciplinary, cross-sector and collaborative approach the Unit engages in by applying and developing statistical, decision and risk analytical methods to advance best practices and inform decision-making in industry and a range of public policy areas. So check the website and keep tuned in!

Article by Prof. Simon French, Dr Nikos Argyris and Dr Anjali Mazumder. See http://www2.warwick.ac.uk/fac/sci/statistics/riscu for further information

VISITORS TO THE DEPARTMENT

We had our first undergraduate student from Monash University, AI Department, Daniel Sun, MURPA scheme, under the guidance of Prof. Jim Smith and Lorna Barclay (PhD student) visit us in the Spring. The scheme has been involved in the development of software to implement new class of statistical models to monitor the longitudinal behaviour of individuals, especially in medicine and education and he will continue this project next year. The development of commercial software is currently being investigated.

Jorge Perez Rodriguez and Eduardo Acosta Gonzalez from Universidad de Las Palmas de Gran Canaria, Las Palmas, Spain, joined us on 1st May 2013 as guests of Mark Steel. They will be here until the end of September.

Vu-Lan Ngyuen has been visiting Nikos Zygiouras since 1st April and leaves the department at the end of July.

Our next edition will feature an article by Mrs Martine Barons on How to organise a .......

Conferences, workshops, seminars, colloquia, symposia and their close relatives are the lifeblood of academic life where researchers meet to discuss, decompose and refine the latest ideas and advances in the field. Papers are written, collaborations formed, vacancies filled.....

If you have never organised an event like this, the prospect can seem quite daunting. Here are a few pointers for how to do it well. Start with the end in mind. Make sure you are clear what the purpose of your event is, what your delegates will expect to get out of coming and how you will know if you have been successful. If you are organising it with other people, it is important that you are agreed on the purpose and success criteria. WIIFM & WIIFT? What’s in it for me? That probably depends on your seniority and the meeting you are organising. If you are early in your career, organising an event that you can demonstrate was successful is a valuable addition to your CV when you’re next looking for your next job. If you are more senior, developing and maintaining a reputation for organising high quality meetings will enhance your prospects for obtaining sponsorship and high quality speakers for more and possibly bigger and more prestigious meetings in the future. Read more in our next edition......
UPCOMING SEMINARS

Thursday, 6\textsuperscript{th} June 2013  
**Speaker:** Ajay Jasra (National University of Singapore)  
**Title:** On the convergence of Adaptive sequential Monte Carlo Methods  

Abstract: In several implementations of Sequential Monte Carlo (SMC) methods, it is natural and important in terms of algorithmic efficiency, to exploit the information on the history of the particles to optimally tune their subsequent propagations. In the following talk we provide an asymptotic theory for a class of such adaptive SMC methods. Our theoretical framework developed here will cover for instance, under assumptions, the algorithms in Chopin (2002), Jasra et al (2011), Schafer & Chopin (2013). There are limited results about the theoretical underpinning of such adaptive methods: we will bridge this gap by providing a weak law of large numbers (WLLN) and a central limit theorem (CLT) for some of the algorithms. The latter seems to be the first result of its kind in the literature and provides a formal justification of algorithms that are used in many practical scenarios. This is a joint work with Alex Beskos (NUS/UCL).

Thursday, 13\textsuperscript{th} June 2013  
**Speaker:** Piotr Fryzlewicz (London School of Economics)  
- Please check the web site for details of this talk

Thursday, 27\textsuperscript{th} June 2013  
**Speaker:** Nicolai Meinshausen (University of Oxford)  
- Please check the web site for details of this talk

OPEN DAYS

The department will be extremely busy on Friday 21\textsuperscript{st} and Saturday 22\textsuperscript{nd} June when we are expecting 100+ visitors each day.

Fancy being the editor of the next edition of Statistically Speaking? If so, please send an email to statspeak@warwick.ac.uk

Did you spot that the Birmingham Post featured us in their May 28\textsuperscript{th} online edition. The feature “University of Warwick’s statistics work on brain scans gets Wellcome boost” can be found at http://www.birminghampost.net/news/west-midlands-health-news/2013/05/28/university-of-warwick-s-statistics-work-on-brain-scans-gets-wellcome-boost-65233-33379224/