

The Open University Statistics Group

2010 Report

1. Membership

Professor P.H. Garthwaite (Head of Group)
Dr K. Anaya
Professor F. Critchley
Dr A.E. Faria
Professor C.P. Farrington
Dr G.E. Iossif
Professor M.C. Jones
Mr I.W. Martin (to June)
Professor K.J. McConway
Dr C.M. Queen
Dr N.T. Trendafilov
Dr S. Unkel
Dr S.K. Vines
Dr H.J. Whitaker
Mrs J.E. Williams (from August)

Visiting & Emeritus Professor

Professor J.C. Gower

Full-time research students

Mr O. Anacleto
Mr T.E. Collins (joint with Computing)
Mr F. Elfadaly
Mr D. Gragn
Ms A. Noufaily
Mr A.J. Santos (from October)
Mr Y.G. Weldeselassie (from October)

Part-time research students

Mr N. Calleja
Mr G. Kafatos
Mr A. Owen

Support staff

Mrs S. Frain, Group Secretary

Visitors

Dr C.J. Albers (University of Groningen, Netherlands)
Professor P.K. Marriott (University of Waterloo, Canada)
Professor H. Oja (University of Tampere, Finland)
Dr A. Pewsey (University of Extremadura, Cáceres, Spain)

2. Introduction

We start this introduction on a very sad note. It is with the deepest regret that we record the death in June of our colleague Ian Martin. At the time of this death, Ian was Staff Tutor in the OU's West Midlands region, having previously served as Staff Tutor in the East Midlands region. He had joined the OU in February 2002 having previously held a variety of jobs of an educational nature. Ian was popular with regional and central OU colleagues. Centrally, he served on several Statistics Examination and Award Boards, producing good quality material and always enthusiastically agreeing, indeed volunteering, to take on more tasks! At the time of his death, Ian was on the production course team of our new course on *Mathematical Statistics*, and had produced drafts of three units and a second draft of one of these. Ian's death was sudden and a bitter blow to us all.

Otherwise, 2010 was another busy and successful year for Statistics at the Open University in both research and teaching.

Substantial work continued on both our new web-based course M347 *Mathematical Statistics* and on the revision of M343 *Applications of Probability*. The Group's four modules in presentation attracted a total of over 1800 students in 2010 (total numbers diminished only by the demise of our short course *Chance, Risk and Health*).

In the course of the year, members of the Group published many papers in refereed journals (see Section 6), including some of the very best outlets. Pre-publication papers and other research material can be found in our technical report series, at http://statistics.open.ac.uk/TechnicalReports/TechnicalReports_Intro.htm. 2010 far surpassed even the previously outstanding 2009 in terms of our international profile with members of the Group taking part in numerous international conferences (no fewer than 43 talks and posters, all told). We also added two further instalments to our long-standing series of Open University conferences in Statistics.

And there was great grant success, congratulations being due to Paddy Farrington and Paul Garthwaite: see Section 11.

In August, we were delighted to be able to welcome Jane Williams back to our ranks, as Staff Tutor jointly for the OU's Wales and South West regions. Jane left us at the end of 2003 to take up a more senior position in the Open University in Wales, but has now seen the error of her ways!

The Statistical Advisory Service, which supports research in other departments across the Open University, continues to run successfully. It is led by Alvaro Faria, with assistance from Paul Garthwaite and sometimes others. A website explains the service: <http://www.mathematics.open.ac.uk/advisory>.

Further information on the Group is available through our web pages at <http://statistics.open.ac.uk>

3. Teaching

At this juncture, we will move from the old Open University designations of "course" and "award" to their new titles, "module" and "qualification".

Presentation

The Group presented four modules of 30 CATS points each, namely, [M248](#) *Analysing Data* (Chair: Gillian Iossif), [M249](#) *Practical Modern Statistics* (Chairs: Karen Vines, (Jun-Sep) Heather Whitaker), [M343](#) *Applications of Probability* (Chair: Gillian Iossif), and [M346](#) *Linear Statistical Modelling* (Chair: Paul Garthwaite).

Each of the first level mathematics modules, [MU123](#) *Discovering Mathematics* and [MST121](#) *Using Mathematics*, contains statistical material, MST121 substantially so (roughly one quarter of the module); Nickolay Trendafilov was involved with the latter. Kevin McConway contributed to the presentation of [SDK125](#) *Introducing Health Science*.

Production

The Group has continued production of M347 *Mathematical Statistics*. As well as enhancing our third level provision with a new module that gives “the theory behind the methods”, this module is notable for leading the way within the Department of Mathematics and Statistics in terms of electronic presentation: it will be presented entirely on-line. Catriona Queen and Chris Jones are production team co-chairs; Paddy Farrington and Heather Whitaker are also unit authors, as was the late Ian Martin; and Robert Hasson (Applied Mathematics Group) has a very important software development role, facilitating the interface between Latex drafting and the University’s Virtual Learning Environment.

Gillian Iossif is leading the revision of M343 *Applications of Probability*. This old, but very successful, module is in need of a certain amount of improvement and updating. Gillian is single-handedly authoring the entire revision. She has help in the form of Kevin McConway as critical reader. Nickolay Trendafilov contributed to software aspects.

Qualifications

Our modules are compulsory components of degrees in [Mathematics and Statistics](#), [Computing and Statistics](#), [Mathematics and its Learning](#) and [Economics and Mathematical Sciences](#), as well being specified options in certain other qualifications. Ninety students were awarded the Mathematics and Statistics degree in 2010. The undergraduate [Diploma in Statistics](#) is awarded to students who successfully study [M248](#), [M249](#), [M343](#) and [M346](#) (or their predecessors). The Diploma was awarded to 127 students in 2010.

4. Ph.D.s awarded

Ardiana Gjini **for her** thesis *Community acquired bacterial meningitis and meningococcal septicaemia amongst adults in England and Wales: Epidemiology and clinical management* (supervisors: **C.P. Farrington and K.J. McConway**).

5. Research interests

The Department is home to three Research Groups:

Multivariate Statistics: Critchley (chair), Anaya, Faria, Garthwaite, Gower, Gragn, Jones, Queen, Trendafilov, Unkel, Vines, Constantine (CSIRO, retired), Cook (University of Minnesota), Marriott (University of Waterloo), Taylor (University of Hertfordshire).

Bayesian Statistics: Queen (chair), Faria, Farrington, Garthwaite, McConway, Vines, Whitaker.

Medical Statistics: Whitaker (chair), Farrington, Garthwaite, Unkel, Vines.

Clearly, these three general groupings cover a huge variety of research projects in Statistics. Research also continues, of course, on topics not directly covered by these Research Groups, of which distribution theory, kernel smoothing, robust statistics, time series forecasting and influence analysis are but a small selection. Strong ongoing collaborations continue in areas such as medicine, psychology, traffic modelling and ecology. Collaboration with the National Air Traffic Control Service is emerging.

For details, see the publications, talks and other items to follow.

6. Publications

6.1 Publications in refereed academic journals

Albers, C.J. & **Gower, J.C.** (2010) A general approach to handling missing values in Procrustes analysis. *Advances in Data Analysis and Computing*, **4**, 223-237.

Araya, Y.N., Silvertown, J., Gowing, D.J., **McConway, K.J.**, Linder, H.P. & Midgley, G.F. (2010) Variation in $\delta^{13}\text{C}$ among species and sexes in the family Restionaceae along a fine-scale hydrological gradient. *Austral Ecology*, **35**, 818-824.

Chaubey, Y.P., Mudholkar, G.S. & **Jones, M.C.** (2010) Reciprocal symmetry, unimodality and Khintchine's theorem. *Proceedings of the Royal Society Series A*, **466**, 2079-2096.

Crawford, J.R., **Garthwaite, P.H.** & Porter, S. (2010) Point and interval estimates of effect sizes for the case-controls design in neuropsychology: Rationale, methods, implementations and proposed reporting standards. *Cognitive Neuropsychology*, **27**, 245-260.

Critchley, F., Schyns, M., Haesbroeck, G., Fauconnier, C., Lu, G.B., Atkinson, R.A. & Wang, D.Q. (2010) A relaxed approach to combinatorial problems in robustness and diagnostics. *Statistics and Computing*, **20**, 99-115.

Farrington C.P. & Hocine M.N. (2010) Within-individual dependence in self-controlled case series models for recurrent events. *Journal of the Royal Statistical Society Series C*, **59**, 457-475.

Garthwaite, P.H. & Mubwandarikwa, E. (2010) Selection of prior weights for weighted model averaging. *Australian and New Zealand Journal of Statistics*, **52**, 363-382.

Gower, J.C. (2010) Procrustes methods. *Wiley Interdisciplinary Reviews: Computational Statistics*, **2**, 503-508.

Gower, J.C., van der Velden, M. & Groenen, P.J.F. (2010) Area biplots. *Journal of Computational and Graphical Statistics*, **19**, 46-61.

Jones, M.C. (2010) Distributions generated by transformations of scale using an extended Schlömilch transformation. *Sankhyā Series A*, **72**, 359-375.

Kato, S. & **Jones, M.C.** (2010) A family of distributions on the circle with links to, and applications arising from, Möbius transformation. *Journal of the American Statistical Association*, **105**, 249-262.

Trendafilov, N.T. (2010) Stepwise estimation of common principal components. *Computational Statistics & Data Analysis*, **54**, 3446-3457.

Kostova, S., **Trendafilov, N.T.**, Popova, S. & Georgieva, N. (2010) Eco-efficiency: concept, approaches and assessment. *Bulgarian Journal of Meteorology and Hydrology*, **15**, 118-128.

Schyns, M., Haesbroeck, G. & **Critchley, F.** (2010) RelaxMCD: smooth optimisation for the minimum covariance determinant estimator. *Computational Statistics & Data Analysis*, **54**, 843-857.

Unkel, S. & **Trendafilov, N.T.** (2010) A majorization algorithm for simultaneous parameter estimation in robust exploratory factor analysis. *Computational Statistics & Data Analysis*, **54**, 3348-3358.

Unkel, S. & **Trendafilov, N.T.** (2010) Simultaneous parameter estimation in exploratory factor analysis: An expository review. *International Statistical Review*, **78**, 363-382.

Unkel, S., **Trendafilov, N.T.**, Hannachi, A. & Jolliffe, I.T. (2010) Independent exploratory factor analysis with application to atmospheric science data. *Journal of Applied Statistics*, **37**, 1847-1862.

Wang, B.X., Yu, K. & **Jones, M.C.** (2010) Inference under progressively type II right censored sampling for certain lifetime distributions. *Technometrics*, **52**, 453-460.

6.2 Refereed conference proceedings

Collins, T., Laney, R., Willis, A. & **Garthwaite, P.H.** (2010) Using discovered, polyphonic patterns to filter computer-generated music. In Proceedings of the International Conference on Computational Creativity, eds: D. Ventura, A. Pease, R. Perez y Perez, G. Ritchie & T. Veale, Lisbon, pp. 1-10.

Collins, T., Thurlow, J., Laney, R., Willis, A. & **Garthwaite, P.H.** (2010) A comparative evaluation of algorithms for discovering translational patterns in Baroque keyboard works. In Proceedings of the International Symposium on Music Information Retrieval, eds: J.S. Downie & R.C. Veltkamp, Utrecht, pp. 3-8.

Elfadalay, F.G. & **Garthwaite, P.H.** (2010) On eliciting expert opinion in generalized linear models. In Proceedings of the Tenth Islamic Countries Conference on Statistical Sciences (ICCS-X), Vol. I, eds: Z. Amin & A.S. Hadi, Cairo, pp. 537-557.

7. Seminars and conferences at The Open University

The Statistics Group organised two conferences in 2010.

In May, the Group organised its 22nd approximately annual one-day conference, this one on **Statistical Methods for Outbreak Detection**, followed by a two-day workshop on the same topic. The organising committee comprised Nick Andrews (Health Protection Agency), Paddy Farrington, Sarah Frain, Paul Garthwaite, Sara Griffin (secretary in Mathematics & Statistics Department), Chris Robertson (Strathclyde University) and Steffen Unkel. The event was partly funded by the National Institute of Health Research.

Speakers at the conference were:

Nick Andrews (Health Protection Agency, London) *Detecting outbreaks using a national laboratory reporting network: statistical methods and practical issues*

David Conesa (University of Valencia, Spain) *Bayesian Markov models for the early detection of influenza epidemics.*

Peter Diggle (Lancaster University) *Spatio-temporal modelling of meningitis incidence in sub-Saharan Africa.*

Alex Elliot (Health Protection Agency, Birmingham) *Syndromic surveillance in the UK: real-time monitoring of morbidity in the community*

Marianne Frisén (University of Gothenburg, Sweden) *Robust outbreak surveillance*

Pia Hardelid (Health Protection Agency, London) *Real-time mortality monitoring in England and Wales*

Leonhard Held (University of Zurich, Switzerland) *A model-based view on outbreak detection*

Michael Höhle (Robert Koch Institute, Berlin, Germany) *Danish mortality monitoring using the R package Surveillance*

Anette Hulth (Swedish Institute for Infectious Disease Control, Stockholm, Sweden) *Practical usage of computer-supported outbreak detection in Europe*

Chris Robertson (Strathclyde University) *Statistical aspects of syndromic surveillance in Scotland*

Speakers at the workshop were:

Steffen Unkel (The Open University) *A review of statistical methods for the prospective detection of infectious disease outbreaks*

Michaela Paul (University of Zurich, Switzerland) *Poisson autoregressive model for prospective outbreak detection*

Suzie Seabroke (Medicines & Healthcare Products Regulatory Agency) *Detecting drug safety signals from spontaneously reported adverse drug reaction data*
Kimberley Kavanagh (University of Strathclyde) *Exception reporting of 'influenza-like' syndromes in Scotland using NHS24 data*

Claudia Wells (Office for National Statistics) *Mortality statistics England & Wales*

Neville Verlander (Health Protection Agency, London) *An exception reporting system using NHS Direct*

Adam Wagner (University of Cambridge) *Addressing serial correlation in exception reporting systems*

Edward Wynne-Evans (Health Protection Agency, London) *Revision of LabBase exceedance programme*

Paddy Farrington (The Open University) *Issues raised during the conference/workshop*

The 23rd pseudo-annual one-day conference was held in July. It was called **The Geometry of Data Analysis**, also known as **Gowerfest II**, organised in honour of the 80th birthday of John Gower. The organising committee comprised Frank Critchley, Sarah Frain, John Gower and Karen Vines.

After a special introduction by David Hand (Imperial College London), other speakers at the conference were:

Niel Le Roux (University of Stellenbosch, South Africa) & Sugnet Lubbe (University of Cape Town, South Africa) *From Biplots to Understanding Biplots: A decade of studying biplot methodology with John Gower*

Giuseppe Bove (University Roma Tre, Italy) *Asymmetry in proximity data*

Patrick Groenen (Erasmus University, Rotterdam, Netherlands) *Biplots, multidimensional scaling, and eigenvalues*

Ludovic Lebart (Telecom-ParisTech, France) *Data compression, summary and knowledge*

Casper Albers (University of Groningen, Netherlands) *Missing values in general forms of Procrustes analysis*

Wojtek Krzanowski (University of Exeter) *Optimal predictive partitioning*

Mark de Rooij (Leiden University, Netherlands) *The geometry and use of triadic distance models*

Frank Critchley (The Open University) *Conics, cones and ...*

The group also ran its usual **seminar programme** with invited speakers. Over the year we heard:

Arthur Pewsey (University of Extremadura, Cáceres, Spain) *On a family of circular distributions due to Batschelet*

Davy Paindaveine (Université Libre de Bruxelles, Belgium) *Multivariate quantiles and multiple-output regression quantiles: from L_1 optimization to halfspace depth*

Michael Goldstein (University of Durham) *Bayesian uncertainty analysis for complex physical models*

Heather Turner (University of Warwick) *Extended Bradley-Terry models for paired comparisons*

Dankmar Böhning (University of Reading) *The ratio-plot for capture-recapture estimation*

Wally Gilks (University of Leeds/Rothamsted Experimental Station) *Detecting sites of differential adaptation in multiple sequence alignments*

Mark Girolami (University of Glasgow) *Riemann manifold Langevin and Hamiltonian Monte Carlo methods*

Mark Steel (University of Warwick) *Non-Gaussian spatiotemporal modelling through scale mixing*

Alvaro Veiga (Pontifical Catholic University of Rio de Janeiro, Brazil) *Evaluating the predictability of stock market returns via STARX-Tree models*

We also ran our seventh **Annual Research Students' Research Day**, where speakers were Osvaldo Anacleto, Neville Calleja, Tom Collins, Fadlalla Elfadaly, Andrew Gustar (Music Department, OU), Angela Noufaily, Alun Owen.

And we had an **internal research morning** at which speakers were Steffen Unkel, Paddy Farrington, Frank Critchley, Paul Garthwaite and Karim Anaya.

8. Conference & workshop papers and posters given

O. Anacleto

33rd Research Students' Conference in Probability and Statistics, Warwick *Bayesian forecasting models for traffic management systems*

Transport Research Laboratory/OU Forum, The Open University *Statistical models for road traffic networks*

Valencia International Meetings on Bayesian Statistics 9/ISBA 2010, Benidorm, Spain *Bayesian forecasting models for traffic management systems* [Poster]

Statistical Modelling and Inference for Networks (Statworks), Bristol *Graphical dynamic models for road traffic networks* [Poster]

K. Anaya

WOGAS 2, Workshop on Geometric and Algebraic Statistics 2, Warwick *Computational Information Geometry: Model Sensitivity and Approximate Cuts*

ICORS2010, International Conference on Robust Statistics, Prague, Czech Republic *Computational Information Geometry: Model Sensitivity and Approximate Cuts*

Mixture Estimation and Applications, ICMS Edinburgh. *On some geometrical aspects of mixture models* [Poster]

F. Critchley

ICORS2010, International Conference on Robust Statistics, Prague, Czech Republic *Emerging geometries for statistical science: a very short introduction*

Gowerfest II, The Open University *Conics, cones and ...*

IGAI3, Information Geometry and Its Applications, Leipzig, Germany
Computational information geometry: model sensitivity and approximate cuts

ERCIM'10, 3rd International Conference of the ERCIM Working Group on Computing & Statistics, London
Computational information geometry and robustness

F. Elfadaly

33rd Research Students' Conference in Probability and Statistics, Warwick
On eliciting expert opinion in generalized linear models

Valencia International Meetings on Bayesian Statistics 9/ISBA 2010, Benidorm, Spain
On eliciting priors for correlation coefficients in generalized linear models
[Poster]

A.E. Faria

Valencia International Meetings on Bayesian Statistics 9/ISBA 2010, Benidorm, Spain
Dynamic Bayesian smooth transition auto-regressive models

IBC2010, 25th International Biometric Conference, Florianopolis, Brazil
Dynamic spatial Bayesian models for radioactivity deposition

C.P. Farrington

26th International Conference on Pharmacoepidemiology (ICPE), Brighton
The self-controlled case series method in pharmacoepidemiology

ditto: *Antipsychotics and MI in patients treated with cholinesterase inhibitors: Some methodological issues*

ISBC2010, 31st Annual Conference of the International Society for Clinical Biostatistics, Montpellier, France
Self-controlled case series methods: recent developments and applications

ditto: *Shared frailty models for multivariate serological survey data: interpretation, identifiability and model choice*

RIVM workshop on serological surveillance, Bilthoven, Netherlands
Serological surveys: What can they tell us?

Workshop at London School of Hygiene and Tropical Medicine, London
Control without controls: analyses of vaccine safety using case series

P.H. Garthwaite

Valencia International Meetings on Bayesian Statistics 9/ISBA 2010, Benidorm, Spain *Adaptive optimal scaling of Metropolis-Hastings algorithms using the Robbins-Monro process* [Poster]

D. Gagn

International Conference of the Royal Statistical Society 2010, Brighton *Sparse principal components by semi-partition clustering*

ISCB2010, 31st Annual Conference of the International Society for Clinical Biostatistics, Montpellier, France *A semi-partition approach to gene clustering* [Poster]

Workshop on Sparse Structures: Statistical Theory and Practice, Bristol *Sparse eigengenes by semi-partitioning clustering method* [Poster]

M.C. Jones

Statistical Inference in Theory and Application; A Conference in Honour of John Copas, Warwick *My CPD: From CPD to CPD*

Lecture Day with Professor Balakrishnan, Durham *The Cauchy-Schlömilch transformation, its extensions, and a useful analogue*

73rd Annual Meeting of the Institute of Mathematical Statistics, Gothenburg, Sweden *Extended Cauchy-Schlömilch transformation*

ERCIM'10, 3rd International Conference of the ERCIM Working Group on Computing & Statistics, London *Some alternative parametric families and their interconnections*

K.J. McConway

8th International Conference on Teaching Statistics, Ljubljana, Slovenia *Statistics on national radio: some insights from working with professional broadcasters*

A. Noufaily

73rd Annual Meeting of the Institute of Mathematical Statistics, Gothenburg, Sweden *Parametric quantile regression based on the generalized gamma distribution*

28th European Meeting of Statisticians (EMS2010), University of Piraeus, Greece *Parametric quantile regression based on the generalized gamma distribution*

International Conference of the Royal Statistical Society 2010, Brighton *A parametric quantile regression approach to the conditional generalized gamma distribution*

C.M. Queen

Valencia International Meetings on Bayesian Statistics 9/ISBA 2010, Benidorm, Spain *Forecasting flows in traffic networks* [Poster]

A.J. Santos

ERCIM'10, 3rd International Conference of the ERCIM Working Group on Computing & Statistics, London *Tree-structure vector autoregressive model with smooth transition – STVAR-tree*

N.T.Trendafilov

ERCIM'10, 3rd International Conference of the ERCIM Working Group on Computing & Statistics, London *Factor analysis of data matrices with more variables than cases*

S. Unkel

Statistical Methods for Outbreak Detection Workshop, The Open University *A review of statistical methods for the prospective detection of infectious disease outbreaks*

56th Biometric Colloquium of the International Biometric Society – German Region, DAGStat2010, Dortmund, Germany *On assessing time dependence of association in bivariate current status data*

Statistical Computing 2010 Workshop, Castle Reisenburg, Germany *Zig-zag exploratory factor analysis with more variables than observations*

ISCB 2010, 31st Annual Conference of the International Society for Clinical Biostatistics, Montpellier, France *On the measurement of age-varying association in bivariate current status data*

Autumn workshop of the working group "Statistical Methods in Epidemiology" of the International Biometric Society - German Region, Bremen, Germany *Shared frailty models: Interpretation, identifiability and model choice*

IBC 2010, 25th International Biometric Conference, Florianopolis, Brazil *On the measurement of age-varying association in bivariate current status data*

ditto: *Shared frailty models and the estimation of heterogeneities in transmission*

9. Other seminars and talks given**K. Anaya**

University of Reading *Sensitivity analysis, cuts and geometry*

University of Birmingham *Sensitivity analysis, cuts and geometry*

F. Critchley

University of Valladolid, Spain *Computational information geometry and model robustness: a new statistics?*

University of Newcastle *Computational information geometry: model sensitivity and approximate cuts*

A.E. Faria

Pontifical Catholic University of Rio de Janeiro, Brazil *Dynamic spatial Bayesian matrix models for radionuclide deposition*

J.C. Gower

British Classification Society, University College London *Quadratic minimisation problems*

M.C. Jones

University of Leeds *The Cauchy-Schlömilch transformation, its extensions, and a useful analogue*

Universidad de Extremadura, Badajoz, Spain *The Cauchy-Schlömilch transformation, its extensions, and a useful analogue*

N.T. Trendafilov

Technical University Vienna, Austria *Exploratory factor analysis: new aspects*

10. Editorial roles

F. Critchley

- Associate Editor: *Journal de la Société Française de Statistique*
- Editorial Board Member: *Studies in Classification, Data Analysis, and Knowledge Organisation* (book series, Springer)

C.P. Farrington

- Associate Editor: *Biostatistics*
- Editorial Board Member: *Epidemiology and Infection*

J.C. Gower

- Associate Editor: *The Mathematical Scientist*

M.C. Jones

- Associate Editor: *Annals of the Institute of Statistical Mathematics*
- Associate Editor: *Communications in Statistics*
- Associate Editor: *Journal of Statistical Planning and Inference*
- Associate Editor: *Journal of the Korean Statistical Society*
- Associate Editor: *Statistica Sinica*
- Associate Editor: *Statistical Methodology*

N.T. Trendafilov

- Associate Editor: *Computational Statistics*

11. Grants awarded (to OU)

C.P. Farrington & P.H. Garthwaite

A grant of £621,000 from the Medical Research Council for the 3-year project *Statistical outbreak detection methods for large multiple surveillance systems*.

N. Edwards (Earth and Environmental Sciences Department, OU) & P.H. Garthwaite

A grant of €3,400,000 from the European Union for a multi-centre three-year project *Enhancing robustness and model integration for the assessment of global change*. The project is led by the Open University.

12. Other activities

F. Critchley

- co-organised WOGAS 2, Workshop on Geometric and Algebraic Statistics 2, University of Warwick, and a session at ICORS2010, International Conference on Robust Statistics, Prague, Czech Republic
- visited Instituto Superior Técnico, Lisbon, Portugal

A.E. Faria

- spent the first four months of the year on study leave at Lisbon University, Portugal

C.P. Farrington

- member of the RSS Council and Council representative on RSS Research Section committee. Elected from Council to serve on the President Nominating Committee and on the Executive Committee
- member of the WHO Ad-Hoc Committee on EPI Serology in Relation to Intermittent Preventive Treatment in Infants against Malaria
- member of the Wellcome Trust's Study Design Expert Group
- external examiner for the MSc in Statistical Science at the University of Lancaster
- examined two PhDs, one at the University of Strathclyde, the other at Cambridge University
- is a co-investigator on a French grant approved in 2010, €240,000, from the Agence Nationale pour la Recherche, on applications of case series methodology. Visited INSERM in Paris to collaborate on this project
- is a co-investigator (as is Heather Whitaker) on two Canadian research grants approved in 2010, for Can\$219,000 from the Ministry of Health and Long-Term Care, and for Can\$190,000 from the Canadian Institutes of Health Research, both on applications of case series methodology

P.H. Garthwaite

- external examiner for undergraduate statistics courses at the University of Mauritius, alas for the last time
- external examiner for undergraduate statistics courses at the University of Aberystwyth

J.C. Gower

- member of the Sir Ronald Aylmer Fisher Memorial Committee of Great Britain
- foreign member of the Advisory Board of IOPS (Interuniversitaire Onderzoekschool voor Psychometrie en Sociometrie)
- examined a PhD for Anhara University, India

M.C. Jones

- member and vice-chair of the RSS Research Section committee
- examined a PhD for University of Leeds

K.J. McConway

- completed his long term as Associate Dean (Curriculum and Awards) of the Faculty of Mathematics, Computing and Technology
- external examiner for the MSc in Statistics at the University of Kent
- member of the South Central Regional Funding Committee for the Research for Patient Benefit Programme of the NHS National Institute of Health Research
- academic consultant on three more series of the BBC Radio4/OU series 'More or Less'
- gave a talk on *Statistics and the Media* to the Bristol group of "Sceptics in the Pub"

N.T. Trendafilov

- examined a PhD for Technical University Vienna, Austria

H.J. Whitaker

- is a co-investigator (as is Paddy Farrington) on two Canadian research grants approved in 2010, for Can\$219,000 from the Ministry of Health and Long-Term Care, and for Can\$190,000 from the Canadian Institutes of Health Research, both on applications of case series methodology