

MATHEMATICS AND STATISTICS

NEWSLETTER

September 2003

WELCOME

- Welcome to Terry Forbes (University of New Hampshire) who is visiting for a month. Terry is a former postdoc at St Andrews from 1980 to 1984 and is a regular collaborator with Eric Priest.
- Welcome to Dr Michael Albert from Dunedin, New Zealand (where he is working with Mike Atkinson). Michael will be in St Andrews until Christmas, working with Nik Ruskuc, and other members of CIRCA. His visit is supported by an EPSRC grant.
- Welcome to Dr Sophie Huczynska who joins the Pure Mathematics Division as a Teaching Fellow for this semester. Sophie obtained her Ph.D. from Glasgow earlier this year. She will be teaching the Groups course to our honours students.
- Welcome to Dr Colva Roney-Dougal, a new research assistant in CIRCA. After obtaining her first degree in St Andrews, Colva went on to do a Ph.D. at QMW, then spent a two years at the University of Sydney, and is now back in St Andrews for this three year appointment funded by EPSRC.
- Clare Parnell and Jean Reinaud who have both been with us for some-time as Research Fellows, have joined the Applied Mathematics lecturing staff. Clare will be holding her lectureship concurrently with her PPARC Fellowship for four years.
- Barry Ridge has joined the Analysis research group to start work on a PhD.
- Welcome to Stephen Waton, who is starting his Ph.D. studies in the Algebra Group, under the supervision of Nik Ruskuc.

- Welcome to the following new PhD students to the Solar Theory Group

Rhona Maclean - comes from Warwick back to her native Scotland (an edinburgher, Alan) to work with Eric Priest on Complex Magnetic Topology of the Corona, as well as to enjoy hill walking and ceilidhs.

Richard Brown - returns to St Andrews (he graduated here a year ago) to work with Alan Hood on non-linear wave propagation in inhomogeneous coronal magnetic structures,

Michael McEwan - returns to St Andrews after graduating this year to work with Bernie Roberts and Ineke De Moortel on Coronal Seismology - and to practice football.

- Welcome to Ross Bambrey, Nasser Mahdy and Jemma Shipton who begin as postgraduate students this year in the Vortex Dynamics group. Ross is coming back to St Andrews, where he did his undergraduate degree in mathematics. Nasser comes from Qena, Egypt on an Overseas Research Scholarship, and Jemma comes from Cambridge and Reading, after just completing a maths/meteorology MSc with distinction.

CONGRATULATIONS

- Tom Blyth and Alex Craik have both retired after 40 years on the mathematics staff (to say nothing of taking their undergraduate degrees in St Andrews). We wish them both long and happy retirements, though we have by no means seen the last of them!
- Congratulations to Colin Beveridge on successfully defending his thesis on Magnetic Topology of the Solar Corona. Colin is now working on IT development down in Bracknell and hopes to start a postdoc position next year out in Montana with Dana Longcope.

EVENTS

- The School will undergo its Teaching Quality Review on Tuesday 18th and Wednesday 19th November. The Review will include interviews by the panel with various groups of staff and students, and sitting in on selected lectures, as well as looking at School documentation.

- To celebrate the 60th birthday of Prof Eric Priest, the Solar Group hosted an honorary meeting, entitled "Magnetic Reconnection and the Dynamic Sun", from 8-11th September in the School of Mathematics and Statistics. The event was attended by almost 100 solar and magnetospheric scientists from around the world who presented both reviews and new work in topics of particular interest to Eric. Many are old friends who were returning to St Andrews after a few years absence.

One of the highlights of the meeting was the conference dinner where one of Eric's former students, Prof Peter Cargill of Imperial University, gave a brief photographic history of Eric and the Solar Group. Eric was also presented with traditional Japanese robes by delegates from Japan to celebrate his rebirth at 60.

The meeting was organised by three of Eric's old students, Prof Alan Hood, Prof Peter Cargill and Dr Philippa Browning, with the support of the local organising committee comprising of Clare Parnell, Daniel Brown, Ineke De Moortel, Cath Gerrard, Duncan Mackay and Alison Keracher. Invited talks were given by Alan Hood and Thomas Neukirch and a talk by David Pontin. Posters were presented by Gavin Donnelly, James McLaughlin, Francois Bocquet. The meeting included a one day PLATON network session that was attended by over 30 of the delegates from the main meeting. PLATON is a European training network comprising of eight institutes led by St Andrews and co-ordinated by Dr Thomas Neukirch.

SEMINARS, LECTURES, RESEARCH VISITS

- Peter Jupp attended a workshop on Quantum Measurements and Quantum Stochastics held at the University of Aarhus on 7th-12th August, giving a talk on 'Some aspects of quantum statistical inference'. He then went to Berlin to attend the 54th Session of the International Statistical Institute.
- Jean Reinaud attended the 5th Euromech Fluid Mechanics Conference (24-28 August) in Toulouse, France where he gave a talk co-authored by David Dritschel on the "Vortex merger in quasi-geostrophic flows".
- Colin Campbell and Nik Ruskuc attended NSAC03 at the University of Novi Sad, Serbia from 24 to 27 August. Nik gave a one-hour plenary session and Colin also gave an invited talk. Both chaired conference sessions.

- Alan Cairns and Duncan McGregor attended a conference organised by the Quantum Optics, Molecular and Plasma Physics Division of the Institute of Physics, held at the Open University in Milton Keynes during the week beginning 8th September. Alan gave an invited talk on "Plasma physics - why is it important", while Duncan presented a poster on "Bernstein wave heating and current drive". The following week they participated in a Spherical Tokamak Workshop held at UKAEA Culham, where Alan gave a talk on "Bernstein wave heating and current drive". Duncan is now back in St Andrews after spending most of the summer at Culham.
- Alan Hood presented a lecture on the Sun and Introduction to MHD at the PPARC Advanced Summer School at Warwick. This school was attended by Gavin Donnelly, James McLaughlan, Alexandra Cran and Paul Wood, who all presented posters.
- Eric Priest lectured at the PPARC Introductory Summer School at Sheffield. This was attended by Michael McEwan and Rhona Maclean.
- Thomas Neukirch attended the Annual Meeting of the Astronomische Gesellschaft (the Astronomical Society of Germany, Austria and the German speaking part of Switzerland) in Freiburg, Germany from September 15-19. The theme of the meeting was "The Sun and Planetary Systems: Paradigms for the Universe" and Thomas gave a talk on 'Quasistatic Magnetic Pinching of Force-free Hyperbolic Flux Tubes' in a very interesting session titled "The Coronae and Winds of the Sun and Solar-like Stars."

CREEM

- CREEM Opening Dr Brian Lang hosted the Opening of CREEM by Professor John Lawton CBE, FRS, Chief Executive of Natural Environment Research Council (NERC) on 2nd September. There were posters on display covering research by CREEM and CCS.
- Workshops

We have just finished running three workshops. The first was a five-day workshop, Estimating Animal Abundance, which was held from 2nd to 6th September. The workshop has been developed with funding from UK research councils (EPSRC and NERC). The instructors were David Borchers, Steve Buckland and Len Thomas from St Andrews together with

Professor Walter Zucchini from the University of Gottingen and Professor Byron Morgan from the University of Kent at Canterbury.

Our annual Distance workshops: 'Introduction to Distance Sampling' was held from 10-12 September and 'Advanced Techniques and Recent Developments in Distance Sampling', was held from 15-17 September. The instructors were David Borchers, Steve Buckland, Len Thomas and Louise Burt. There were participants from 19 countries. In the last ten years of RUWPA and CREEM workshops, we have had over 300 participants from around 50 countries.

- Departures

Camilla Dixon has left to start a teacher training course at Durham. We wish Camilla well with her chosen career and hope she comes back to see us shortly - as we are especially missing her cakes.

- Visitors

Colin Southwell, from the Australian Antarctic Division, Tasmania, visited us in August. He is working with David Borchers and Charles Paxton on the analysis of Pack Ice Seal Survey Data.

Mette Hammershoj is visiting until early October from the National Environmental Research Institute, NERI, Denmark.

- Arrivals

Carl Donovan started on 1st September on a two-year Lectureship in Statistics. Carl carried out his PhD work on splines in multivariate analysis at Auckland, and expects to submit his thesis shortly.

Ciara Brewer started an MPhil on butterfly monitoring methods in July, supervised by Monique Mackenzie, Steve Buckland and Tom Brereton of Butterfly Conservation. She graduated with a first class honours degree in Statistics from University College, Dublin.

Jonathan Bishop is starting on a PhD to develop state-space methodologies for fitting population dynamics models, supervised by Ken Newman, Len Thomas and Steve Buckland. Jon is well-known to many of us, having graduated with a first class honours degree in mathematics and statistics from here this summer.

Also welcome back to Tiago Marques who has returned from Portugal for a couple of months.

NEXT ISSUE

Please send material for the next Newsletter to: mcsnews@mcs.st-andrews.ac.uk