

MATHEMATICS AND STATISTICS

NEWSLETTER

October 2000

WELCOME

- to Dr Richard Rossmanith who will be an Honorary Lecturer in the School during the coming session when he will help us set up a new Honours module on Financial Mathematics. Richard is a Senior Consultant at the Financial and Commodity Risk Consulting division of Arthur Andersen Inc. in Frankfurt, Germany. Richard received his Ph.D. from the University Jena, Germany with a dissertation on Groups and Lie Algebras in 1997, during which time he was also involved in St. Andrew's University's computer algebra project 'GAP - Groups, Algorithms and Programming'.
- to the new Post-doctoral researchers joining the Solar MHD Theory Group Thomas Wiegmann, Istvan Ballai and Gordon Petrie. Istvan is from Romania, but has a PhD from Budapest, and is in the final stages of completing a second PhD from Leuven, Belgium, where he worked with Prof Marcel Goossens, mainly on MHD waves. Thomas is from Germany, where he did his PhD in Bochum with Prof Karl Schindler, working mainly on helmet streamers and the slow solar wind. Gordon is, of course, well known to us having just finished writing his PhD with Thomas Neukirch.
- to the new PhD students joining the Solar MHD Theory Group, Colin Beveridge, Christopher Mellor and Mairi McRobbie. Mairi and Colin will be familiar to many because they did their undergraduate studies here, Mairi in Mathematics and Theoretical Physics and Colin in Mathematics with French. Chris Mellor joins us from Oxford, where he did a degree in Physics.
- to William McKiver and Jean Reinaud who have joined the Waves, Vortices and Turbulence research group. They are both supported by funds from the EPSRC. William comes originally from county Longford, Ireland and begins his study here as a postgraduate student. He spent last year at

Trinity College Dublin studying high performance computing. Jean comes from the south coast of France and did his undergraduate and PhD training in Toulouse at the Ecole Nationale Supérieure d'Ingenieurs de Constructions Aéronautiques (ENSICA). He joins the group as an RA for 3 years and will be studying aspects of rotating, stratified turbulence both theoretically and computationally.

- to Fiona Underwood who is a new PhD student in RUWPA. After graduating from Warwick, Fiona worked for a time as a statistician at Scottish Natural Heritage. She left to take an MSc in Applied Statistics at Reading, after which she worked for their Statistical Services Centre.
- to Leire Ibaibarriaga who has joined RUWPA. Leire comes from the Spanish fisheries research institute, AZTI, who are collaborating with RUWPA on a 3-year EC-funded project to develop methods for estimating Iberian sardine and anchovy biomass. The project involves the development and implementation of new multidimensional smoothing methods developed by Simon Wood.
- to Antonio Diaz, from Palma de Mallorca, who is visiting the Solar Group for 5 weeks for discussions on MHD waves. Antonio is a PhD student with Prof Jose Luis Ballester and Dr Ramon Oliver, both themselves frequent visitors to our Group.

CONGRATULATIONS

- to Sharon Hedley for the successful defence of her thesis, 'modelling heterogeneity in cetacean surveys'. Sharon leaves in November for a year in southern California, where she will be applying her spatial models to cetaceans in the tropical Pacific and the Antarctic.
- to Peter Jupp on becoming the new head of the Statistics Division. Peter takes on this position following the retirement of Allan Gordon who has served this department so well for the last 28 years. We all wish Allan well and hope he enjoys his new found freedom!
- to Alan Hood on becoming the new head of the Solar Group. His new appointment results from the stepping down of Bernie Roberts as head to allow him more time to work on his long await and eagerly anticipated book on MHD waves.

TELEVORSION

- For a possibly amusing display of vortex dynamics on television, tune in to next Monday's (16th October) equinox program 'Lethal Seas' (Venturing into the Vortex) at 9pm on Channel Four. Some might see a familiar face! David Dritschel has taken the wise precaution of being in Cambridge next week....
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NEWS

- Frank Smith was the school representative at UMTC in Sheffield. Of the 35 participants 5 had a St Andrews connection - Judy Ekins (Open), Dirk Hermans (Birmingham), Tony Kay (Loughborough), Brian Stewart (Oxford) and Frank. Frank participated in a forum/report on how to attract more Honours Mathematicians.
- Edmund Robertson spent three days going round schools near Aberdeen giving a lecture on Pi as part of Aberdeen's TechFest. Unfortunately, this coincided with the petrol price protests and he spent three hours driving at walking pace behind farm tractors resulting in this bit of news just missing last months newsletter!
- The PPARC Advanced Summer School in Solar System Plasmas was held at Warwick University this year gathering about 30 students from the UK and abroad. Claire Foullon attended and presented a poster coauthored by Bernie Roberts on 'The influence of a buried magnetic field on p-modes' (the same that she presented a month earlier in Manchester when she attended the IAU 24th General Assembly). She met former members of the Solar Theory Group: Valery Nakariakov who gave an excellent lecture on MHD waves and instabilities; Tony Arber, who was busy settling down in his new job as lecturer at Warwick University; and Erwin Verwichte who presented a poster on 'Slow magnetoacoustic waves in coronal loops'.
- In the summer Freda and David Kemp spent a month in Canada and the USA. After attending the Statistical Society of Canada annual meeting in Ottawa, they paid research visits to Queen's University, Kingston, and McMaster University, Hamilton, before taking a short break in London, Ontario (complete with River Thames and a beefeater doorman at their

hotel). They then crossed the border to make a research visit to the University of Maine in Orono, where they were also invited speakers at an International Conference on Statistics in the 21st Century, held to celebrate Professor C R Rao's 80th birthday. Freda gave a paper on 'The estimation of fecundability, with cycles to conception treated as time to extinction' and David spoke on 'Bivariate lost-games distributions'.

- Over the summer, Oliver Buhler spent ten weeks at the Summer School in Geophysical Fluid Dynamics held annually at the Woods Hole Oceanographic Institution in Massachusetts (U.S.A.). This involved lecturing on wave-mean interaction theory and supervising a student project on wave breaking and vortex dynamics on beaches. All will be revealed at an Applied Maths seminar coming to this Department real soon!

Oliver also attended a workshop on Geometry and Topology of Fluid Flows held at the Isaac-Newton Institute in Cambridge, which was a good opportunity to brush up his infinite-dimensional geometry as well as his Russian (with about equal success).

- Sharon Hedley recently attended a meeting in Tokyo to plan the next IWC Antarctic minke whale survey. As usual, the meeting proceeded efficiently during the day, with the evening social events springing into life immediately afterwards. Along with sushi, this year the Western scientists were also invited to try 'fugu', or puffer fish, which is a poisonous Japanese delicacy. Supposedly the chefs are sufficiently skilled to have removed all the poisonous bits, but Sharon didn't take the risk and politely declined the invitation. Congratulations to Fernanda Marques, who was selected as a researcher for the survey.
- The algebra group would like to thank Prof. Howie for his kind donation of books to the Algebra Group library.

Also the Algebra Group has Dr. H. Doostie visiting for approximately six months. Dr Doostie works at The University of Teacher Education, Tehran, Iran, and is a former PhD student of Dr. Campbell.

NEXT ISSUE

- Please send any material for the next newsletter to mcsnews@mcs by 12pm Thursday 9th November.