

MATHEMATICS AND STATISTICS

NEWSLETTER

April 2000

CONGRATULATIONS

- to former research students Katie Mills and Jason Smith who got married on Easter Saturday. They were both PhD students with the Solar Group, Jason completed his studies in 1997 and Katie finished in 1999. The ceremony was attended by Bernie Roberts, David Boddie, Daniel Brown and Ineke de Moortel. We send them our best wishes for their future life together.
 - to Karen Kennedy (now Innes) from the Maths/Physics library who got married on the 1st April.
 - to Drs N Ruskuc and A Wright on gaining promotion to Readers and to Dr D Borchers on gaining promotion to Research Grade III
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WELCOME

- to Jan Thirase from the University of Goettingen who is visiting the School from the 10th April until the 20th May. He is visiting B O Stratmann and M Kesseboehmer to discuss topics related to his PhD-thesis on counting functions arising from spectral analysis on hyperbolic manifolds.
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FOR RENT

- We (O Buhler and family) will be in the U.S. from 17th June – 26th Aug this summer and are contemplating renting out our 1 bedroom flat on Buchanan Gardens during that period (large garden, 10mins walk to Maths dept). If anyone has any visitors who might be interested, please contact Oliver Buhler (obuhler@mcs.st-and.ac.uk).

NEWS

- Alan Cairns attended the Annual Conference of the Institute of Physics Plasma Physics Group in Brighton on 27th-30th March. This meeting was held alongside a more general Physics Congress and Alan chaired one of the plenary lectures at the latter, given by Professor Per Bak. At the plasma physics meeting he gave one talk and was a co-author on four posters, one with Guy Warner, the others with a variety of outside collaborators.
- On 17 and 18th April, Bernard Roberts, Klaus Galsgaard, Daniel Brown and Catherine Gerrard of the Solar Theory Group attended the annual UK Solar Physics meeting held at Sheffield University. The meeting was organised by Robertus Erdelyi - previously a PDRA in St Andrews and now a Sheffield University lecturer in applied mathematics - and Helen Mason (Cambridge University).

Bernard Roberts chaired the session on Waves and Oscillations. Daniel Brown gave a talk on 'The Magnetic Structure of X-Ray Bright Points', and Klaus Galsgaard gave a talk titled 'Elementary Heating Events - Magnetic Interactions Between Two Flux Sources'. Catherine Gerrard presented a poster titled 'Non-linear Kink Instabilities in Coronal Loops', and another poster by Ineke de Moortel (who was unable to attend) on 'Observation of oscillations in coronal loops'

During the conference dinner we were treated to a lively Klezmer band; two past solar group members, Michael Ruderman and Cesar Mendoza, were so overcome that they found instruments of their own and provided an entertaining accompaniment. Bernard Roberts gave a vote of thanks to the conference organisers.

- On 20 April, Professor Brian Hoskins FRS, President of the Royal Meteorological Society, delivered the Curle Memorial Lecture on 'Forecasting weather and climate: a chancy business'. He discussed how over fifty forecasts are made at one time to work out the probability of different kinds of weather in a few days time, yet only one of these forecasts (if any!) are given to the public. We are screened from information deemed to be too complicated, or commercially profitable, yet this information could be of great practical use to many of us. The subject of climate change was also discussed, and he showed that the consensus prediction is for continued global warming (and associated sea-level rises) due principally to carbon dioxide emissions.

- John O'Connor and Isabel Araújo went to Leeds to participate in the 52nd British Mathematical Colloquium. Isabel gave a talk at the Algebra splinter group entitled 'Direct products of semigroups'. There were over 300 participants in the colloquium!
- Clare Parnell attended the 6th Easter Plasma meeting in Turin at which she gave an invited talk on three-dimensional magnetic reconnection.
- Thomas Neukirch visited the Department of Mathematics and Statistics at the University of Newcastle on 31 March and gave a seminar entitled '3D Models of Solar Magnetic Fields'. He also gave an invited talk on 'Equilibrium Models of Coronal Magnetic Fields' at the General Assembly of the European Geophysical Society in Nice on 26 April.
- Professor M Salimullah of Jahangirnagar University in Bangladesh will visit the School for about three months from 2nd May, working with Alan Cairns with the support of a grant from the Royal Society. Professor Salimullah is head of a department which contains two of Alan's former students, M R Amin and A A Mamun.

SEMINARS

- Informal Analysis Seminars (Math. Rm 1A - 3pm)
 - Tuesday 2nd May K Falconer “Brownian motion and related fractals (I)”
 - Tuesday 9th May L Olsen “Geometric maximal functions (I)”
- Royal Statistical Society Seminars (Math. L.T. B - 3.15pm)
 - Wednesday 10th May Dr C Hackett (BioSS - Scottish Crop Research Institute) “Statistical methods for linkage analysis and QTL mapping in plants”
 - Wednesday 10th May Professor D Balding (University of Reading) “Genealogical Modelling to Locate Disease Genes from Case-Control Data”
- Statistics Seminar (Math. L.T. B - 4pm)
 - Monday 15th May P Jupp “Improving inferential accuracy through intermediate asymptotics”

PRIZE COMPETITION!

- The illustration below is of a Japanese ‘sangaku’ wooden plaque, announcing an original geometric result, which was hung in Isaniwa Shrine, Ehime Prefecture, in 1873. The fan makes a third of a circle. The problem is to find the ratio of the areas of the small dark circles to those of the small light circles. The answer, but not the proof, is there for those who can read it.

The best correct solution submitted to Alex Craik (Rm 302) by the end of May will win a suitably Japanese prize. To spur you on, you may like to know that the plaque was hung by one Kinjiro Takasaka, an 11-year-old student.

NEXT ISSUE

- Please send any material for the next newsletter to mcsnews@mcs by 12pm Tuesday 30th May (I will be away the week before).