

MATHEMATICS AND STATISTICS

NEWSLETTER

July - August 2007

WELCOME

- Welcome to Neil Symington, who takes over from Chris Brady as the Parallel Computer System Manager. Neil is in room 221 and will be looking after the new cluster.
- Welcome to Jim McKenzie, who is visiting Andy Wright from 27 August - 16 September.
- Welcome to Mike Evans, from Washington and Lee College in Virginia who is visiting the Analysis Group from August until Christmas. Some members of the School (particularly those who play golf!) will remember Mike from his visit here in 2002.
- Welcome to Professor John Hildebrand from the Scripps Institute of Oceanography, San Diego, California. John is here for a six month sabbatical to work with Len Thomas on methods of estimating whale and dolphin density from undersea hydrophones. He will be based at the Observatory, and he and his family are staying in Crail.
- Welcome to Louise Smy and Dan Lucas, who are starting their PhDs in the Vortex Dynamics Research Group. Louise and Dan both were undergraduates here, so they know the ropes (well, some of them!). Dan spent a year away doing a Masters course in Mathematics and Meteorology, at the University of Reading.

CONGRATULATIONS

- Congratulations to Peter Jupp on his promotion to Professor. Peter has a distinguished record of research in theoretical statistics, particularly in a number of areas involving the interface between statistics and geometry, and it is very pleasing to see his contribution recognised by the University.

- Congratulations to Ross Bambrey, who has been given a place to work on Vortex Methods with Lorena Barba at Bristol University, starting at the beginning of July.
- Congratulations to Tricia Watson and her son, Liam (14yrs), who completed the West Highland Way (a 95 mile walk from Milngavie to Fort William in August) - for a second time. They first completed it two years ago and finished the walk by conquering Scotland's highest Munro, Ben Nevis. This year, the inclement weather, prevented the planned ascent of another two Munros in Glen Nevis, instead they walked along the Glen (in the pouring rain) to a spectacular waterfall. Daily mileage ranged from 10 to 19 miles, some days gruelling, others a stroll. The 19 miler incorporating the infamous Devil's Staircase, but for the experienced hillwalker, it's just a mere bump! The WHW is a beautiful walk, taking you through some breathtaking scenery - well recommended - but take plenty of midge repellent!

GOODBYE

- Farewell to Marital Hille who takes up a research position in Berlin in September.
- Goodbye to Ali Mohebalhojeh, who has returned as a Lecturer to Tehran University. Ali was a NERC Research Fellow working in the Vortex Dynamics Research Group. He has been working with Dritschel on new numerical approaches to weather forecasting and climate prediction, and they have made major advances in the design of more accurate numerical models.

MISCELLANEOUS

- Alex Craik's book, "Mr Hopkins' Men: Cambridge Reform and British Mathematics in the 19th Century", published by Springer, is now available in hardback – but prospective purchasers may well choose to wait a few months for the promised paperback.
- Len Thomas was external examiner for a PhD student in Newcastle University, who's thesis was on the application of modern statistical methods to further understanding of tropical coral reef fish. Noting from the May

newsletter that Ken Falconer was able to ask questions in broken French at a PhD defence in Paris, Len attempted a few questions in broken Geordie before reverting back to English. Wey aye man.

SEMINARS, LECTURES, RESEARCH VISITS

- CREEM held its annual series of three workshops in distance sampling methods at The Observatory 15-25 August. The courses were themed "Introduction to distance sampling", "Advanced distance sampling", and "Primer on density surface modelling of distance sampling data." Instructors on the courses included Prof. Steve Buckland, Dr. David Borchers, Dr. Louise Burt, Dr. Len Thomas, Dr. Rachel Fewster, Ms. Laura Marshall, and Dr. Eric Rexstad. Forty-four participants from 17 countries attended this year's workshops; including a brave group of 11 participants who attended all three sessions. We look forward to next year's workshops in August, as well as our hosting of an international statistical ecology conference in July.
- Mike Harrison and Thomas Neukirch visited the Space Weather Laboratory at NASA's Goddard Space Flight Center, Greenbelt, Maryland, from 20 to 25 August 2007 to start a new collaboration with the director of the Space Weather Lab, Dr Michael Hesse, on particle-in-cell simulations.
- Jun Miao, Sara Munday and Anthony Samuel attended the workshop for young researchers on Chaotic Dynamics and Dimension Theory at the University of Warwick, at which Jun gave a talk.
- Lining Liu attended a postgraduate workshop on Probability and Stochastic Processes at the University of Warwick.
- On 20-21 August, Alex Craik attended and gave a paper at the first leg of a small three-centre conference on "Promotion of Critical Abilities in Science, Technology and Humanities", held at Ross Priory, Loch Lomond. The conference, which continued to Oxford and Geneva, was sponsored by the Japan Society of the Promotion of Science, and Japanese participants formed the majority. Alex's wife Elizabeth attended and gave papers at both Ross Priory and Geneva.

- David Borchers and Ruth King were invited speakers at the workshop on "Recent Developments in Capture-Recapture Methods and their Application" in Reading in July (taking place the week before the flooding in that area!). Richard Cormack also attended the successful workshop.
- Jean Reinaud gave a talk "Energy transfers during the interaction between two co-rotating QG vortices" at an international colloquium on Stratified and Rotating Flows (Grenoble, 27-31). The colloquium was part of the "18ième Congrès Français de Mécanique". The talk was co-authored by Ross Bambrey (now PDRA in the University of Bristol) and David Dritschel.
- Stephane Regnier attended the eruptive event workshop in Cambridge (25-27 July) giving a review talk on field extrapolations. He also attended the Hinode Science Meeting in Dublin (20-24 August) and gave an oral contribution on "What can we learn from nonlinear force-free extrapolations?".
- Neil Symington, Alan Hood, Clare Parnell and Ineke De Moortel attended a one day workshop on the LARE code, organised by Tony Arber in Warwick University.
- Len Thomas attended the "3rd International Workshop on the Detection and Classification of Marine Mammals using Passive Acoustics" in Boston, Massachusetts in July, where he also chaired the start-up meeting for his project on estimating cetacean density from passive acoustics (see previous newsletter); co-investigator David Borchers also attended that meeting. They had some time to tour the sights of Boston, which seem largely to consist of reminders of the war of independence and the TV show Cheers.
- Ineke De Moortel gave an invited talk at the SOHO19 meeting (Melbourne, 9 -13 July), entitled "Propagating Slow Waves in Coronal Loops - What Can They Tell Us"

NEXT ISSUE

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