



Making the right connections

On the 13th, March London Mathematical Society, Holgate lecturer Dr Nick Gilbert gave a very entertaining lecture to about 130 people from local schools and students from the department. His talk "Making the right connections" illustrated the links between the established pure maths topic of graph theory begun in 1736 and the increasingly important 21st century subject of "small world networks". He used the cinema graph as a novel example of a small world network.

The cinema graph has 559,321 vertices (all the film stars in the world) and any two actors/actresses who have been in a film together are linked by an edge. The centre of the graph is the film star Kevin Bacon. Nick asked us to guess the fewest number of links you need to go from any star to Kevin Bacon. In the part of the graph shown you can see that the fewest number of links from Sean Connery to Kevin Bacon is 2. Surprisingly, 85% of the world's film stars are linked to Kevin by at most 3 films!

You can find your own favourite film star's Bacon number on www.cs.virginia.edu/oracle/

I tried my favourite Hugh Grant and he has a Bacon number of two: Hugh Grant was in *Micky Blue Eyes* with Gerry Becker, and Gerry Becker was in *Trapped* with Kevin Bacon. If you can find one with a Bacon number bigger than 7 let me know!

Prof Amanda Chetwynd (a.chetwynd@lancaster.ac.uk)

Funding still available for postgraduate study at Lancaster!

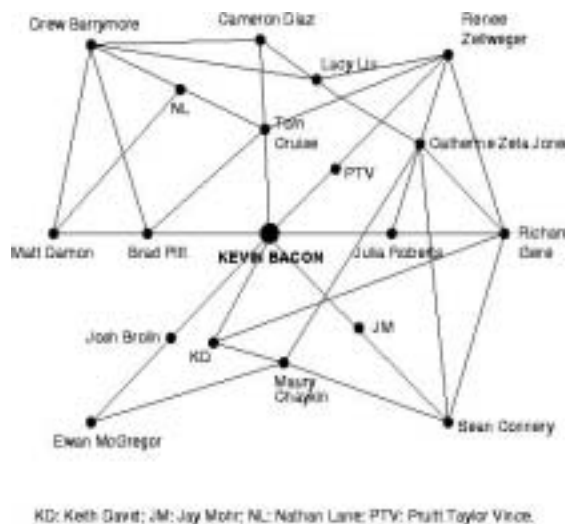
Have you considered postgraduate study to develop further the mathematical or statistical skills you have acquired during your degree? The Department of Mathematics and Statistics has places and funding available for suitable candidates interested in MSc or PhD study.

Please contact Peter Diggle for further details (B29 Fylde, p.diggle@lancaster.ac.uk).

Staff—Student Football Match

Don't miss the sporting event of the term - Mathematics and Statistics Staff take on the Department Undergraduates, in what is tipped to be an exciting and action packed game.

Date and time to be announced... watch the notice boards for details!



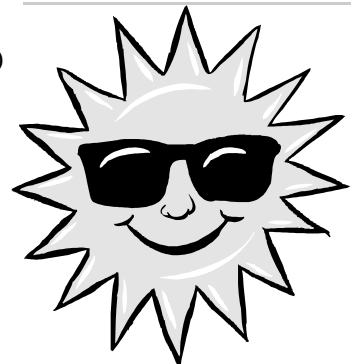
Volume 2, Issue 3
May 2003

Contributions Needed

Would you like to write a piece for the Department newsletter? It can be anything you think other members of the Department would like to hear about! Send your contribution to Jan (email j.heffernan@lancaster.ac.uk) by Friday 15th September.

CONGRATULATIONS!

Gareth and Paul have both recently become fathers again! Gareth and his wife Debbie are now the proud parents of Christian. Paul and his wife Alex also have a son, called Benjamin.



Part II Exam Marks

Exam marks for all Part II courses taken by students who are not graduating this summer will be available from the Department Office from Wednesday week 10 of this term.

What will you do when you graduate?

Our third year rep, Jo Bult, asked our current third year students what they plan to do when they finish their degrees. Here is what she found out...

A selection of third year students taking mathematics and statistics courses this year were surveyed at the end of last term to find out their intentions for next year, and their reflections on their degree. A total of 27 students took part in the survey, including some students enrolled on the 4th year MSci course.

They were asked to comment on whether they thought that the skills learnt in their maths and stats degrees would come in useful in the future. The majority of students were sure that any degree would be useful in the future (mainly for the initial job application process), although some pointed out that this would only be the case if it came from a good university and with a good classification! Fewer were convinced they would make use of the specific knowledge gained in the three years, although people going on to take postgraduate courses or take up financial occupations seemed more hopeful. Perhaps for many, this year will be the last time they ever do quite so many calculations, but as one person put it, completing a Maths degree shows you can add up!

On being asked about their favourite modules for each year, 101 Calculus (first year), 220 Linear Algebra (second year) and 358 Design Of Experiments (third year) all came up top. Out of the ten courses offered for first years two years ago, all ten got at least one vote, and in fact five courses all took joint second place with 3 votes each. However, it must be noted that all these (except 111, Foundations) were in the 100 series, and therefore a far greater number of students attended. The second year course 220, on the other hand, was a definite winner, beating 225 (Group Theory) by 3 votes. Finally, for the numerous third courses on offer this year, only nine got votes (although, this questionnaire was given to students only one week into their final modules). Again, Design of Experiments was a clear winner, explained perhaps by the large number of students taking it (22), and the large coursework component.

During their third year, just under 30% of those questioned had part-time jobs during term time. This may be considered quite a low figure, and in fact many said they had stopped after the second year, presumably to concentrate on their final year courses. Regarding full time jobs next year, by the end of last term, a third of those questioned had not decided what to do next year; whether it be applying for a job, travelling or doing further study. Just under half of those who were still unsure were actively

looking, while most of those who had decided their next move had gone some way to applying, with a few even holding job or course offers. None of those thinking about doing a PGCE had applied by the end of last term. The general consensus was that applying for jobs was hard work!

An interesting fact was that over half the students were planning on either living at home or in the surrounding area of home immediately after their degree finished, while a quarter of people had decided they would live where their career placed them!

The students were finally asked whether they thought university was worth the associated debts. While a few felt that the cost of university was far too much, 78% considered the university experience worth every penny, listing new experiences, the social life and opportunities to learn as being the benefits gained. While many students simply said that their degree would be worthwhile if they got a high-paying job as a result, some commented that their degree had given them "a logical style of thinking", helped them gain a "better understanding of numbers" and made them "well respected" among their peers. It was generally agreed that maths and statistics students would be well equipped to enter their chosen field with plenty of numeracy skills to help them succeed.

We're on the Web!

See us at:

www.maths.lancs.ac.uk

Newsletter Editor: j.heffernan@lancaster.ac.uk

