

Institute fellowship ceremonies – 21 and 22 April 2005



Above: New fellows at Staple Inn on 21 April 2005, with Institute president Michael Pomery (centre front): Christian Barrington, Katherine Catchlove, Yong Choong, Nick Clark, David Copley, Kirsty Court, Alec Day, Rik English, Leo George, Benjamin Gunnee, Richard Hake, David Hamilton, Jonathan Harris, Cameron Heath, Colm Hensman, Gareth Henty, Sarah Herrick, Damien Hyland, Rawnak-Ul Islam, Sattar Jackaria, Raj Khatkar, Gavin Kirkpatrick, Oscar Kitasoboka, Marie Lamaletie, Ib Lilley, Brian Lim Ah Ken, David Lindsay, Prechhya Mathema, Hugh McNeill, Sally Minchella, Manesh Mistry, Sinead Morrissey, Christian Mulholland, Amar Nagra, Andrea Neville, Dylan Owens, Rebecca Peachey, James Perkins, Suzy Pilcher, Jonathan Rosmarin, Alistair Russell-Smith, Andrew Smith, Helen Smith, Wai Kuan Tan, Richard Turrington, David Waller, Andrew Ward, Gerard Ward, David Watt, Alan Wilkes, Kate Worrall, Stephen Wright



Above: New fellows at Staple Inn on 22 April 2005, with Institute president Michael Pomery (centre front): Charis Adu-Kwapong, James Bambury, Karen Barlow, Lucy Barron, Daniel Carroll, Steven Catchpole, Tassius Chigariro, Anthony Coughlan, Angela Coulson, Zoe Craig, Paul Crocker, Abigail Currie, Colum D'Auria, Patrick Davies, Jonathan Draper, Helen Evans, Richard Evans, Matthew Fletcher, Una Flynn, Billy Galavan, Dafydd Harries, Gareth Henry, Claire Hoof, James Humpherson, Caroline Jackson, Lakshmi Jeetah, Felicity Kirk, Kevin Lake, Helen Laws, Gordon Lee, Richard Lunt, Damian McClure, Angela McNally, Lisa Mahtani, Sean Milligan, Stewart Mitchell, Eoin O'Baoighill, Lucy O'Brien, Paul O'Byrne, Paul O'Callaghan, Conor O'Donovan, Graham Oswald, Richard Pinder, Simon Robinson, Joanne Roche, John Roe, Marie Ryan, Bijal Shah, Riaan Smit, Reena Thakkar, Ashleigh Theophanides, Werner van der Merwe, Anna Walklate, Helen Westley, David Williams, Matthew Wilmington, Melissa Wong

Extended library opening

The library at Staple Inn currently stays open until 6pm on SIAS meeting evenings. The library offers reference copies of many books from the CT series suggested reading and many papers from the ST series reading, besides reference sets of core reading,

course notes, and past exam papers.

Library staff are pleased to help with book loan requests and returns and provide reading lists to assist your research in the moments before you join other SIAS members for refreshments and attend the meeting.

Sir Joseph Burn Prize winner



Above: Institute president Michael Pomery presenting the Sir Joseph Burn Prize to Richard Gareth Evans on Friday 22 April; the prize was awarded for Richard's overall performance throughout the examinations completed in September 2004

CALL FOR PAPERS

CIA 2006 Stochastic Modelling Symposium

Following the huge success of the 1999 and 2003 symposiums on stochastic modelling, the Canadian Institute of Actuaries (CIA) will sponsor a third symposium on stochastic modelling, to be held on 3–4 April 2006 in Toronto, Ontario. The overall theme for the symposium will be 'Practical actuarial applications of stochastic models'. The symposium will focus on the following three main topics as they apply to the world of insurance:

- ◆ use of stochastic models in valuation of assets and liabilities;
- ◆ use of stochastic models in enterprise risk management;
- ◆ use of stochastic models in credit risk management.

Are you up to the challenge?

The papers submitted in response to this call for papers will be considered for the 2006 Stochastic Modelling Symposium. Authors of accepted papers will be invited to present their papers at the symposium.

Cash prizes will be awarded for the best papers submitted in response to this call. A scientific committee will evaluate the papers and nominate the best ones for prizes.

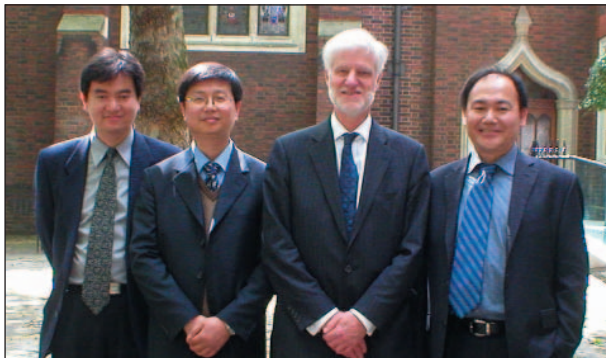
Deadline for submission of papers: 30 June 2005

Timely submission of papers is critical to the success of the symposium. Authors are advised to communicate with Gilbert Lacoste (email gilbert.lacoste@sunlife.com), chair of the organising committee, as soon as possible about their intentions to contribute, but no later than **30 June 2005**.

All papers should be submitted by 30 November 2005 via email to stochastic@actuaries.ca.

For more information about the call for papers and the symposium, please visit www.actuaries.ca/meetings/stochasticsymposium.

Actuarial delegates from China



At Staple Inn on 6 May 2005 (left to right): Professor Jingfeng Xu, Professor Xiaolin Li, Michael Pomery, and Dr Yan Liu

On 5 and 6 May Professor Xiaolin Li and Professor Jingfeng Xu visited City University, the Institute of Actuaries, and the Government Actuary's Department. On 6 May Michael Pomery, Institute president, hosted a lunch for them, together with James Orr (chairman of the Research Steering Committee) and Ms Yan Duan (Lloyd's). Dr Yan Liu, senior actuarial manager at RBS Insurance, attended the lunch and accompanied Professors Li and Xu throughout the day.

Professor Li is the dean of the China Institute for Actuarial Science (CIAS) at the Central University of Finance and Economics (CUFE), Beijing, China. CUFE was the first university in China that taught the UK actuarial education programme to Chinese students back in 1994, under the sponsorship of Eagle Star Insurance (now part of Zurich Financial Services), and is now still one of only two universities in China that offer the UK profession's syllabuses. The establishment of CIAS in 2004 marked an important milestone in the history of Chinese actuarial education, research, and development. CIAS is now the key research institute for actuarial science in China and has three research centres: (i) actuarial science, insurance, and risk management; (ii) social security; and (iii) (identification, measurement, and control of) financial risks. The ministry of education in China has limited the number of key research institutes to a nationwide maximum of one per subject area to date, and not all subject areas have key research institutes.

The aim of Professors Li and Xu's visit is to:

- ◆ promote exchange and co-operation between the Chinese actuarial profession and the UK actuarial profession on education, training, and research;
- ◆ explore ways of furthering actuarial education in China through introduction of a UK-accredited system (or exemption for selected subjects) based on CUFE university degree course examinations; and
- ◆ initiate the exchange of actuarial degree students and personnel with UK universities, in particular the arrangements for CUFE's postgraduate students and staff members as visiting students/scholars to carry out part of their study/work at UK institutions.

On 5 May Professors Li and Xu visited Professors Richard Verrall and Steven Haberman at the Cass Business School of City University. On 7 May, they left for Toronto, Canada, to visit actuarial colleagues at the University of Waterloo.

Their visit follows a visit by Michael Pomery and Chris Daykin to China in January 2005. CUFE has already established strong links with Heriot-Watt University, many of whose members of staff in actuarial science have lectured at CUFE on a wide variety of actuarial subjects over the past ten years.

 YAN LIU

INSTITUTE SESSIONAL MEETING

The modelling of extreme events

At the start of April, a number of actuaries, academics, and geologists descended upon Staple Inn for a discussion of David Sanders's paper on extreme events – '... a broad introductory overview of extreme events and the theory underlying their assessment' – a wide-ranging paper, which covered different aspects of general insurance, life insurance, social policy, chaos theory, and astronomy, to name a few of the many topics mentioned.

Wendy Hawes opened the discussion with a summary of the paper, before posing a fundamental question: 'On a more controversial note, the paper also looks at catastrophe modelling and states that catastrophe models tend to underestimate the impact of extreme events, because the underlying parameters are based on normal events. If this is the case, should we be using such models to assess our capital requirements?' Professor Stuart Coles later provided a pragmatic answer, suggesting that extreme value models, of which catastrophe models could be considered a subset, provide a starting point for discussion in the absence of anything better.

Modelling

So, what is extreme event modelling? David explains that '... a claims distribution, in practice, may be considered in two possibly distinct parts: the central part of the distribution, which deals with the normal claims, and the extreme end of the distribution' – it does exactly what it says on the tin!

Given the lack of information regarding the extremes, how do you model them? David put forward a number of theorems, methods, and useful diagnostics (with a suitable smattering of Greek letters included in them). Andrew Smith provided an entertaining written submission, suggesting that: '... exponentially tailed distributions have exponential tails and power law distributions have power law tails – which is perfectly true but not much help in choosing a distribution for extreme events... For this reason it is important to state and verify the underlying hypotheses when applying extremal type theorems.' Although somewhat harsh criti-

cism, it does raise an interesting question regarding the limitations of extreme value modelling, and the need for clarity when communicating the results from such analyses – a topic raised by several other speakers.

Use in operational risk assessment

A number of speakers commented on the use of extreme value theory in operational risk assessment. Ian Reynolds discussed the importance of planning and management to mitigate operational risks, rather than setting aside capital (and the application of extreme value theory) to manage it. He discussed his personal experience of the minimal operational cost impact of the bombs that twice destroyed his company's offices, which he attributed to the robust response of senior management – 'planning is important, but not necessarily the plan'.

Limitations

Michael Tripp's closing comments suggested that understanding and communicating the limitations of the model is as important as the modelling itself. Earlier, Alex Marcuson warned of 'garbage in equals garbage out' and went one-step further, suggesting the potential for statistical models to be selected to justify a desired level of capital, rather than to estimate it. He highlighted the need for the profession to manage the risk associated with this, a thought echoed by others in the audience. Andrew Smith added: 'I would welcome professional guidance, to ensure that such pragmatism (with the consideration of the data underlying the modelling) could not be misconstrued as ignoring awkward data.'

All in all, the paper was well received by the audience. There was a healthy degree of cynicism, but that is always to be expected from a room with a sizeable number of actuaries. Indeed, if there had been a lack of scepticism for extreme value modelling, a subject that involves such a large degree of judgement, then I would have left the meeting disappointed.

 JUSTIN SKINNER