

December 2005

Operational Research Society of New Zealand, Inc. PO Box 6544, Wellesley St. Auckland, New Zealand, www.orsnz.org.nz

40TH ANNUAL CONFERENCE OF THE ORSNZ

2 – 3 December 2005, Wellington, New Zealand



The participants of the 40^{th} Annual Conference of the ORSNZ pose in front of Government House, Wellington. More photos inside.

Latest News

Recent Engineering Science graduate Stuart Donovan, who is attending the APORS conference in Manila, has won the prize for the Best Applied Paper. His paper titled *Wind Farm Optimization* was judged from among all papers submitted to the conference. Stu was selected by the ORSNZ to represent NZ in the APORS Young Scholars' Program at the conference. He presented the work he carried out last year as part of his final year undergraduate project. Fortunately for us, Stu will be continuing to work on this problem when he returns this year to begin an ME part-time.

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Newsletter publication dates are March, June, September, and December. Submissions deadline is the 15th of the month for the following month's issue. Send submissions by email to the Newsletter editor, Matthias Ehrgott, newsletter@orsnz.org.nz. Acceptable formats are plain text, word, or graphic formats jpg, tiff, and gif. PDF or post-script documents are *not acceptable*.

Letter from the President

Another Christmas and New Year break has passed and another set of New Year resolutions such as promising to meet the Newsletter Editor's publication deadlines have been consigned to the same place that all New Year resolutions end up – the spirit was willing but the flesh was weak! But I hope you have all had an enjoyable and relaxing break and that you return to your OR activities in 2006 with renewed vigour and enthusiasm. It is a wonderful time of the year to feel positive and enthusiastic!

This is a good opportunity to highlight another very successful ORSNZ Annual Conference held at the Victoria University campus in early December. The Conference marked the 40th anniversary of the establishment of the ORSNZ and it was fitting that we should meet again in Wellington where the Society was based for so many years. It was good to see almost 60 participants in attendance with a good representation of members of long standing (I was going to say older members but the reality is too close to the truth) and a very encouraging number of younger people. In fact, one of the special highlights of the Conference was a record number of entries in the Young Practitioner Prize competition. With fourteen entries, it was necessary, for the first time, to schedule the YPP presentations in three very full non-plenary sessions and the judges' responsibilities were even more demanding than normal. This has to be a healthy sign for our OR activities in New Zealand since almost all the presentations addressed real practical problems and the standard of the presentations was really outstanding. The judges awarded joint Third Prizes to Stuart Donovan from Auckland and Tim Steer from Canterbury, Second Prize to David Craigie from Auckland and First Prize to Oliver Tompkins from Auckland. At the ORSNZ Council meeting held during the Conference, Stuart Donovan was also selected to represent ORSNZ in the Young Scholars Programme at the APORS Conference in Manila. We have just heard that Stuart was awarded the Prize for the Best Applied Paper at the APORS Conference. This is an outstanding achievement and we extend our congratulations to Stuart. I am sure the Editor will be expecting Stuart to report on the APORS meeting in a future ORSNZ Newsletter.

Another memorable feature of the Conference was the banquet held in the Lion Harbour View Lounge at the Michael Fowler Centre. Not only was the venue impressive but the banquet was a most enjoyable occasion. On behalf of the Society I do want to extend our thanks again to all those involved in the organisation of a very successful Conference. The organising committee were very ably led by Vicky Mabin who has contributed in so many ways and over so many years to the activities of ORSNZ. We very much appreciate the efforts of all those involved in Wellington and we look forward with some anticipation to the 2006 Conference to be held at the University of Canterbury.

At the Conference, I did raise the issues of New Zealand's participation or involvement in the "Science of Better" campaign which originated with INFORMS in the US but has also gained momentum in the UK and Europe. If you haven't taken the time to look at the Science of **Better** websites http://www.scienceofbetter.org/ http://www.theorsociety.com/Science_of_Better /htdocs/prospect/index.asp) I suggest you do so soon. You will see that the Operational Research Society in the UK has adapted the IN-FORMS site to create a version that better meets the needs of British business and industry. We in New Zealand have been offered help by IN-FORMS if we wished to promote OR in a similar way in here. It occurs to me that we could join forces with ASOR in Australia to adapt the website to include case studies and success stories from our part of the world. Please participate by contributing ideas and suggestions so that we can formulate a strategy to join the Science of Better campaign.

David Ryan

Terrorist Attack on OR Conference

This is to bring to the notice of everyone the sad news of a terrorist attack during the conference dinner of the Indian OR society which was being held at the Indian Institute of Science, Bangalore.

In this attack Dr. M. C. Puri, a member of POP, was killed. This has come as a shock to the whole Indian scientific community and specially the OR and optimization community in India. Professor Puri and several other delegates were going toward the lawn or the conference dinner of the Annual conference of the Indian OR Society.

When they were attacked Professor Puri helped others to lie down fast and thus saving their lives while giving up his own. Professor Puri has just retired from the Indian Institute of Technology at Delhi. Further he was also supposed to chair the next meeting of the Working Group of Generalized Convexity and Generalized Monotonicity which was supposed to be held in New Delhi in 2008. The optimization and OR community is in a state of shock and for the scientists who were present there would take a long time to recover from the shock. In fact in the coming years quiet a few optimization programmes and meetings were planned in India at the international level which we now have to give up since we would not like our friends from other countries to come and face an unpleasant situation. We just have to bow down our heads in shame.

Joydeep Dutta

For more information see BBC news at http://news.bbc.co.uk/2/hi/south_asia/4568574.s tm

ORSNZ Visiting Lecturer Scholarships

ORSNZ invites nominations for ORSNZ visiting lecturer scholarships for visits to New Zealand between September 2006 and June 2007. Each visiting lecturer must give a talk on some topic likely to be of general interest to ORSNZ members at each of Auckland, Hamilton, Wellington, and Christchurch. Each visiting lecturer will be invited to write a guest editorial for the society newsletter. The emolument of each scholarship is up to \$1000. ORSNZ will not normally consider payment of additional costs to visiting lecturers.

Each candidate must be nominated by a current member of ORSNZ, "the champion". The nomination must include the CV of the nominated visiting lecturer, the date and location of the hosts of the visit, the name of the champion and an undertaking by the champion to coordinate a visit by the nominee to the four above named centres.

Enquiries concerning, or nominations for, scholarships should be sent to

David Ryan, Department of Engineering Science, The University of Auckland, Private Bag 92019Auckland

Raimo P. Hämäläinen ORSNZ Visiting Lecturer January – June 2006

Raimo is a Professor and Director of the Systems Analysis Laboratory at the Helsinki University of Technology. He will spend his sabbatical from January to May 2006 at the Department of Engineering Science at the University of Auckland.



Prof. Hämäläinen is well known for his work in dynamic game theory and decision analysis. He is the author of over 180 publications and con-

ference papers on decision making, control and dynamic games, energy modelling and resource management, and biological systems. He is also the designer of many widely used decision support systems. As a consultant he has helped to solve problems especially in the areas of environmental policy and risk analysis. Recently he has actively worked on the new concept of Systems Intelligence, developed by him and Prof. Esa Saarinen, and its introduction to different organizations.

The International Society on Multiple Criteria Decision Making presented the MCDM Edgeworth-Pareto Award to Professor Raimo P. Hämäläinen as the highest distinction that the international Society on Multiple Criteria Decision Making bestows upon a researcher who, over his career, has established a record of creativity to the extent that the field of MCDM would not exist in its current form without the far-reaching contributions from this distinguished scholar. August, 2004.

A detailed CV is at http://www.sal.hut.fi/Personnel/Homepages/Rai moH/resume.html and a list of his publications is at http://www.sal.hut.fi/Personnel/Homepages/RaimoH/publications.html.

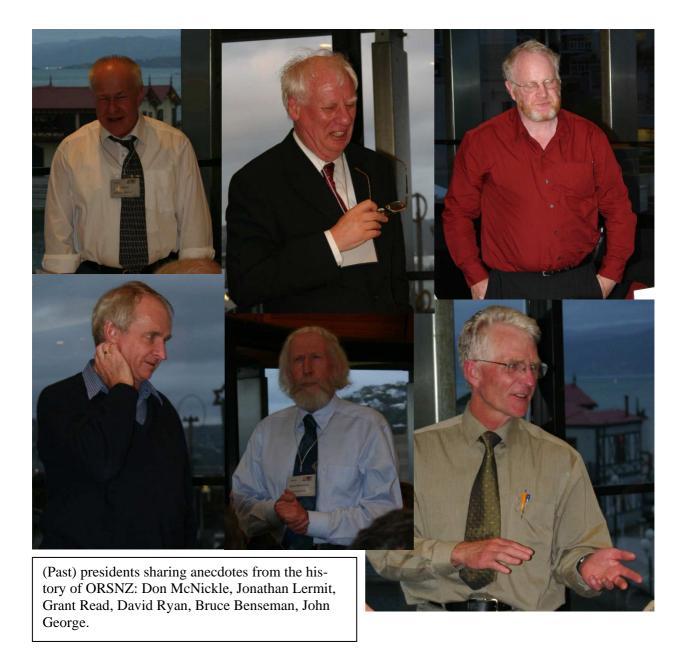
IMPRESSIONS FROM THE 40TH ANNUAL CONFERENCE OF THE ORSNZ 2 – 3 December 2005, Wellington, New Zealand





Left: Jonathan Lermit and Kathryn Jarden cut the 40th birthday cake.

Top: Vicky Mabin thanks Graham Winch, plenary speaker at the conference.





Vicy Mabin, John George, Colin Walker, David Ryan enjoy the conference dinner





David Ryan congratulates Stuart Donovan (University of Auckland), ORSNZ young scholar and delegate to the APORS conference in Manila and Oliver Tompkins (University of Auckland), first prize winner in the young practitioner prize. Oliver Weide is grinning in the background.

People

Victor Portougal †

It is with great sadness that I have to report to you that our colleague Victor Portougal passed away October 20th. Victor was receiving medical treatment over the past few months and this has happened rather suddenly.

Victor has made significant contributions to the ISOM department over the years. He worked hard at bridging the OM and IS groups through his teaching and research. His friendly, accessible and collegial disposition was evident most recently at the ISOM departmental seminar that he gave about the use of good definitions in our research.

I am sure all of you join me in praying for his family and loved ones. He touched all of us in different ways and he will be greatly missed.

Ananth Srinivasan

Graham Rand: Silver Jubilee at IFORS



Graham Rand, of the Department of Management Science, Lancaster University, UK, has ended 25 years service to the International Federation of Operational Research Societies (IFORS) in a variety of significant roles

He was editor of the proceedings and member of the scientific programme com-

mittee for the triennial conference in Buenos Aires in 1987, and chairman of the committee for the following conference in Athens (1990). He served as Vice President of IFORS from 1998 – 2000.

Most of his service, however, has been devoted to publications. Uniquely he has been editor of both IFORS' journals. From 1980 he was the editor of International Abstracts of Operations Research (IAOR) for eleven years. In more re-

cent years he has been managing editor of International Transactions in Operational Research (ITOR), a task that involved negotiating contracts with the publisher and ensuring the timely publication of each issue. A significant contribution in this role has been the creation of the IFORS' Operational Research Hall of Fame. He has overseen the selection of those to be included and worked closely with authors he commissioned to write citations. This process will conclude at the end of 2006, when 23 individuals will have been inducted into the Hall of Fame. More recently, he acted as General Editor, following the retirement of the previous editor.

He comments 'my service for IFORS has been a hugely satisfying part of my professional life. I have felt that I have achieved something, met many great leaders of our profession, and made many friends around the world. IFORS hasn't seen the last of me. I started out in 1974 as a contributing editor to IAOR, and will continue to do this. I also hope to have the opportunity to make a continued contribution to the OR in Developing Countries Committee, particularly in relation to development in Africa'.

Graham Rand has been an enormous contributor to IFORS in a wide variety of important leadership roles, says Thomas Magnanti, IFORS President. He has been especially influential and effective in the area of publications and in his creation of the wonderful IFORS' Operational Research Hall of Fame. IFORS is deeply appreciative of his distinguished service and looks forward to his future contributions in developing country and other initiatives.

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Obituary Patrick Rivett

I first became aware of the name of BHP Rivett early in 1954, when I was a Cambridge post-graduate student. A book entitled Statistics for Technologists had been published the previous year and I found it contained a good, succinct account of probit analysis as an example of the principle of maximum likelihood. The book was written jointly with CG Paradine of Battersea Polytechnic, where Pat lectured two nights each week from 1947 to 1950; the extra money enabled him to marry into a South Wales mining family. Then in mid-1954, I met Patrick Rivett across an interview table in Hobart House, the National Coal Board's headquarters, for Pat was

the Head of the Field Investigation Group (FIG), its having been decided that any title including the word research would go down badly at the coalface. At the time, a major study of underground communications, in response to the Crosswell Colliery disaster when 80 miners perished (including incidentally the father of my wife's closest school friend), was nearing completion. This was the first ever major practical study to use simulation, so that having to confess at the interview that I knew nothing about Monte Carlo methods was unsurprising.

It was while working on armaments research at the Ordnance board in 1951 that Pat had seen an advertisement for the headship of FIG being unsure what operational research (OR) was Pat asked his boss, who said that it was the same as statistics but better paid. To Pat's surprise, he got the job to lead the group, then of seven people, who were applying a mixture of common sense and elementary mathematics to production problems. His enthusiasm was inspirational and he had little difficulty in convincing senior managers right across the Board of the benefits of the work. Thus when Pat left, FIG had grown in size to 80, working on a wide range of problems. Very significantly, he had first gone to the USA in 1953 and realized how much the UK lagged behind the USA in theoretical developments. In those days, members of FIG worked two Saturday mornings each month and one was always devoted to a seminar, as Pat sought to improve the technical content of the Group's work. I remember well, being introduced in 1955 to linear programming and the simplex method by the late Steve Cook, who was deputy head of FIG and had been dispatched to the States to build on Pat's visit. It is ironic that Pat should have started in the UK the avalanche of mathematics, which was to engulf OR in a way that he stridently criticised in later years.

The year 1953 was also significant in the life of Patrick Rivett, because the OR Club decided to open its membership and become a Society. Until then, the Club had a rule that there should be no more than one person from any organization. The NCB was represented by Donald Hicks, the Director of Scientific Control and Pat's boss. Donald volunteered Pat's service as the society's secretary, a role he undertook until 1961; Pat was always delighted by the idea that as a consequence, he was the only Operational Research Society (ORS) member never to have applied to join either the Club or the Society. Pat threw himself into this supposedly part-time

job with all the frenetic energy which characterized everything he did. Not only were there weighty matters like a constitution to be drawnup, but Pat became the target for everyone who wished to know about OR. The interest was immense and he toured the country speaking to meetings, large and small, on what is OR. In those days, the first question in the discussion was 'What is the difference between OR and Work Study?' If an organization wanted to start operational research, Pat was consulted. He was a quite brilliant communicator with a great feel for the use of words!

The first international conference on OR was held in 1957 in Oxford. This followed an approach from ORSA and TIMS to the British, and the French joined in. Sir Charles Goodeve chaired the conference committee and Patrick Rivett did the hard work as conference secretary. On the night of the conference, there was a dinner for the various nationalities and thus was IFORS born. The conference demonstrated vividly to Pat that the UK was falling further behind the US in developing relevant theory. Hence, he went to the Case Institute of Technology for 6 months, to work with the likes of Russell Ackoff, Leonard Arnoff and West Churchman. This visit was to have a profound effect on Pat's views of OR and on his own future.

The year 1960 was a watershed for Patrick Rivett, because he left the Coal Board. Rationalizing why anyone changes jobs is difficult in retrospect, even for the person making the change. The time spent at case had opened Pat's eyes to the limitations of carrying out OR in a one product industry. During the time in the States, he had become a good friend of David Hertz, then in charge of OR at Arthur Andersen in the USA. FIG was doing very well and Pat enjoyed the excitement of creating rather than running operations. Consultancy seemed to be the ideal way forward and Pat joined Arthur Anderson as it OR Manager for Europe.

The following year, Pat became President of the ORS and during the 2 year term, his insatiable quest for new initiatives led to the formation of both regional and study groups. However, he believed passionately that the technical content of UK OR would only be improved if the subject became an academic discipline, as had happened in the States. Interesting universities, therefore, became the main thrust of Pat's presidency. Also during this period, he wrote A

Manager's Guide to Operational Research, jointly with Russell Ackoff. The purpose of the book was to enable the industrial executive to reduce the faith required to undertake OR in his organization. The preface also went on to say 'equally, we hope that this book will appeal to the harassed OR worker who is called upon within his company to explain what it is he is doing'. At that time, I was managing a group, which included OR, in the UK subsidiary of an American food company and can vouch for the support that this invaluable prop provided. It became a source of continual reference and was the better for being concise.

It is remarkable that in the early 1960s, the Unilever Board would set aside a day, when two distinguished people would address it, one in the morning and the other in the afternoon. On one such occasion, the two speakers were Russell Ackoff and Charles Carter, then a professor of economics at Manchester University. Charles had originally been a mathematician and when he heard Russ speak, he realized both were addressing the same problems. Charles therefore arranged to spend a year with Ackoff in the States, but before that could happen, he was appointed to be the first vice chancellor of Lancaster University; the first two departments were economics and operational research. Inevitably, Ackoff recommended that Carter should approach Patrick Rivett to be the first professor of OR. Meanwhile, Pat had developed an antipathy to his highly paid consultancy lifestyle. He disliked being judged on the proportion of chargeable time sold, rather than on the quality of his ideas. Pat was, therefore, very pleased to accept Charles Carter's offer in 1963. Mike Simpson, who had also been in FIG, and I joined the Department the following year.

From 1964 to 1967, Lancaster was simply an incredible place to be, with both Pat and Mike on different occasions describing the period as the most stimulating in their lives. Lancaster was unashamedly modelled on Ackoff's ideas, with industrial practice by postgraduate students being of paramount importance. Clients were charged significant fees for these services, so that in the first academic year of 1964–1965, sufficient monies were raised to pay the salaries of newly recruited staff and to support entirely all the Masters' students, no Research Council studentships being available. As well as generating this large consultancy income, Rivett, Simpson and Mercer gave virtually all the Masters' lectures, some of which were thrown open to

outside participants to increase the Department's revenue. None of the three had any lecture material to draw upon, so that course planning, preparation and delivery was one mad rush. In between, there were 1 week courses given by eminent lecturers from the US and the UK. Pat seemed to know everybody and nobody ever declined his invitation! It was wonderful to listen to Russ Ackoff, Abe Charnes, West Churchman, Bill Cooper, George Feeney, Dave Hertz from the States, Keith Tocher and Edward de Bono from Britain, and many others. We joked that Pat thought the bar of Midland Hotel in Morecambe was the staff common room! Yet he still found the time to write Concepts of Operational Research, which was designed to bridge the gulf between the layman and the OR scientist. That book, published in 1968, was quickly into chapters on 'The Methodology of Model Building' and 'Formulation of Problems', a topic to which he would return time and again as his experience grew. Yet another chapter was on 'Human Problems', which was his first recognition of what was to become soft OR.

Sussex University approached Pat Rivett in 1967 about a chair in OR. Pat had spent a lot of time travelling between Lancaster and London, so that returning south had its attractions. Sussex was longer established, so that its image in those days was more glamorous than Lancaster's. Consulting nobody and making what Pat himself subsequently described as a great mistake, he left Lancaster. However, Sussex University never funded OR adequately from his commercial activities, which it regarded as being too risky. The University appeared unsympathetic to OR and its industrial contacts. Divisions surfaced within the OR staff and the seeds of OR's self-destruction were sown. Pat was thoroughly miserable and appeared increasingly to plough a lone furrow. The Principles of Model Building was published in 1972. In that book, he sought to explore the stages by which decision models may be constructed and to subject the techniques to constructive criticism. A chapter on the influences on the decision-taker recognized human intervention and he wrote about the responsibility of the researcher. Pat had always believed that the object of OR was to improve a service to the community, as of right. Of equal significance was a chapter on decision and utility theory, which marked a flirtation with developing a usable theory of practice. This led to a paper 'Policy Selection by Structural Mapping', published in the Proceedings of the Royal Society in 1977. That paper demonstrates that Rivett, the mathematician, could have enjoyed a highly successful academic career, but he was more concerned to find approximate solutions to exact problems rather than exact solutions to approximate problems. When his wife, Anne died in 1981, he was left with a young daughter, as well as two older children. Pat gradually disengaged himself from Sussex University and OR no long existed there.

Those of us who knew Pat Rivett intimately were saddened by what happened at Sussex, but not entirely surprised. Berwyn Hugh Patrick Rivett was born on 2 April 1923 at Oswestry, but the family moved to London when he was only 3 months old. An elder brother had obtained a place at King's College and it was felt that he should live at home. Their father was an ordained Baptist minister who became an NSPCC inspector covering an area which included the Old Kent Road. His father died when Pat was 10 and the family was poor, living in a vermin-infested slum house. Even so, Pat was sent to a grant maintained grammar school when he failed the 11 plus. In due course, he followed his brother to King's College and emerged in 1944 with a first in mathematics. Pat was immediately drafted into the Ministry of Supply, but still found time to obtain an MSc with distinction in pure mathematics from Birkbeck College. Coming from such a loving and caring Christian family, Pat never saw ill will or deviousness in others. His rise to eminence had been effortless and he had received the unstinting support of senior colleagues like Donald Hicks and Charles Carter. Pat had never had to play corporate politics, nor did he have a liking for such manoeuvrings. He wrongly thought that if he treated Sussex University generously, then all would be well.

In 1989, shortly after his retirement, Pat and Mary married and they moved to a small village in north Cumbria, less than an hour's drive from Lancaster; Pat became an honorary professor in the University. His missionary zeal was undiminished and The Craft of Decision Modelling was published in 1994. The book contains many case studies and anecdotes to illustrate and illuminate nine principles. It is vintage Rivett! The closing thoughts epitomise Pat's view of OR; it is intellectually challenging, is useful and improves the human condition, and is enjoyable. The new found freedom enabled Pat to travel with Mary and he spent semesters lecturing at

various universities in the States. These brought ever more friends, for Pat always enjoyed the company of others. Even when Mary was unwell, there was a never ending succession of visitors. However, Pat continued to research from his study at home, having turned his attention to family health care problems, about which he wrote several papers with medical practitioners in Rochdale. Pat was also in demand as a preacher at churches in Cumbria, for his faith had never deserted him.

It was during a conversation in 1998 that he told me that he hoped his recent research grant application would be unsuccessful. I remember thinking that at the age of 75, the restless spirit would like to slow down, but he wanted others to put on the brake. Pat also said that the previous 10 years had been the happiest of his life. Yet the Society will remember Patrick Rivett as its first Secretary, President, Silver Medallist and Companion. However, my abiding memory will be of a fun loving friend, who was never happier than when watching a game of football. In the early days of Lancaster, we toured the North-west watching teams in the old first division. Our last game together was Carlisle versus the Sheffield Wednesday in the Cup; if only one of the teams had been his lifelong passion, Millwall!

Alan Mercer

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Fusionz: RSNZ Job Search Service

The Royal Society of New Zealand has launched its job search service, Fusionz (http://fusionz.rsnz.org). Fusionz advertises positions in science and technology organisations or for scientific/ technical jobs within other organisations, across New Zealand.



For job seekers: The past two months have seen adverts from a wide variety of organisations - 5 of New Zealand's 8 universities, 8 of

the 9 Crown Research Institutes and several private research institutes, public companies and government agencies. See http://fusionz.rsnz.org/ to browse all listings or search for jobs within a specific geographical or scientific area.

For job advertisers: With 363 Fellows, 1500+ members, 3000 subscribers to our weekly newsletter (which includes updates and the week's new job listings), and 20,000 scientists and technologists represented by our 60 constituent organisations, the Royal Society offers targeted marketing of your job vacancies. Advertising jobs is easy - simply click on 'Add a job' and fill in the details - the vacancy is posted up immediately. The cost is \$50 per advert but we will be happy to offer a discounted flat rate that allows organisations to post up as many vacancies as they have for a set period (contact: nisha.basson@rsnz.org).

Random Citing Scientists and Famous Papers

Some time ago I came across another fine article in the Annals of Improbable Research. That led me to an earlier paper and I thought both might be worth being brought to your attention. Have you ever wondered why it is always the one reference you want to have a closer look at that can't be found in the journal, volume, pages ... that are given in the citation? The answer: Maybe because authors do not read the papers they cite!

M.V. Simkin and V.P. Roychowdhury of the Department of Electrical Engineering at UCLA did some statistical analysis of misprints in scientific citations and discovered a method of estimating the percentage R of people who cited a paper actually read it. A first rough estimate is $R \approx D/T$, where D is the number of distinct misprints and T is the total number of misprints. This is because *T-D* citers copied misprints, the other D are presumed to have read the paper, but introduced a misprint in the references. A more detailed analysis shows that $R = (D/T) \cdot ((N-T)/(N-D))$ with N the total number of citations. Using a paper that had been cited 4300 times, with 196 misprints, 45 of which are distinct, they get R=0.23, respectively R=0.22.

So what? In the follow up paper they analyze citation distributions based on the random citing

scientist: A scientist writing a paper picks m random articles and copies some of their citations, with a probability p each. With m=3 and p=0.25 they obtain excellent fits to true distribution of citation numbers. So if you think a paper that has been cited 500 times must be a breakthrough achievement, be aware that greatness may just be a statistical effect. 24,000 papers published in Physical Review D between 1975 and 1994 were cited 350,000 times until 1997. 44 papers were cited more than 500 times almost the same as the random citing scientists model predicts (1 in 600 papers will be "great").

So, citation errors occur through copying other people's errors because scientists only read a quarter of the references they cite. Moreover the process guarantees that some papers will become famous.

[1] Read before you cite! M.V. Simkin and V.P. Roychowdhury. Complex Systems 14: 269, 2003.

[2] Do copied citations create renowned papers? M.V. Simkin and V.P. Roychowdhury. Annals of Improbable Research 11(1): 24-27, 2005.

Matthias Ehrgott

Puzzle Corner

Puzzle 5 – December 2005



A test on the history of OR included a threepart question. Here are answers of six students:

- 1. a) Kantorovich, b) Kantorovich, c) Dantzig
- 2. a) Dantzig, b) Dantzig, c) Kantorovich
- 3. a) Bellman, b) Bellman, c) Kantorovich
- 4. a) Dantzig, b) Kantorovich, c) Bellman
- 5. a) Bellman, b) Dantzig, c) Dantzig
- 6. a) Dantzig, b) Bellman, c) Bellman Every student answered at least one part correctly. What are the correct answers?

Source: P Berloquin, Games of Logic, Unwin Paperbacks, London, 1977.

Solution to Puzzle 4 in the September Issue

Each external door has one side facing out, so we must show that there is an even number of door sides on the outside. If the house has N doors altogether, it has 2N door sides. It is stated that each room has an even number of door sides facing into it. Thus, there is an even number, say 2K, of doors on the inside of the house. The number of door sides on the outside is then 2N-2K, which is even.

Les Foulds

Chapter News

No chapter news were reported for this newsletter.

Call for Papers

The International MultiConference of Engineers and Computer Scientists 2006 20-22 June, 2006, Hong Kong http://www.iaeng.org/IMECS2006/index.html

The International MultiConference of Engineers and Computer Scientists 2006 will take place in Hong Kong, 20-22 June, 2006. The IMECS 2006 is organized by the International Association of Engineers (IAENG). The conference has the focus on the frontier topics in the theoretical and applied engineering and computer science subjects.

The IMECS 2006 consists of 14 workshops (see details **IMECS** website: at www.iaeng.org/IMECS2006). The multiconference serves as good platforms for the engineering community members of different disciplines to meet with each other and to exchange ideas. The current conference committee of the IMECS 2006 includes over 140 workshop cochairs and committee members of mainly research center heads, department heads, professors, and research scientists from over 20 countries, while a few of the committee members are also experienced software development directors and engineers.

All submitted papers will be under peer review and accepted papers will be published in the conference proceeding (ISBN: 988-98671-3-3). The abstracts will be indexed and available at major academic databases. The accepted papers will also be considered for publication in the



special issues of the journal Engineering Letters. Some participants may also be invited to submit extended version of their conference papers for considering as book chapters (soon after the conference).

The following workshops are held as parts of the IMECS 2006:

- IWAIA'06 The 2006 IAENG International Workshop on Artificial Intelligence and Applications
- IWB'06 The 2006 IAENG International Workshop on Bioinformatics
- IWCS'06 The 2006 IAENG International Workshop on Computer Science
- IWDMA'06 The 2006 IAENG International Workshop on Data Mining and Applications
- IWEE'06 The 2006 IAENG International Workshop on Electrical Engineering
- IWFE'06 The 2006 IAENG International Workshop on Financial Engineering
- IWIE'06 The 2006 IAENG International Workshop on Imaging Engineering
- IWINDE'06 The 2006 IAENG International Workshop on Industrial Engineering
- IWICWS'06 The 2006 IAENG International Workshop on Internet Computing and Web Services
- IWOR'06 The 2006 IAENG International Workshop on Operations Research
- IWSCCS'06 The 2006 IAENG International Workshop on Scientific Computing and Computational Statistics
- IWSE'06 The 2006 IAENG International Workshop on Software Engineering
- IWWN'06 The 2006 IAENG International Workshop on Wireless Networks
- ICMHA'06 The IAENG International Conference on Mathematical, Statistical and Computer Methods in HIV/AIDS 2006

Submission:

Prospective authors are invited to submit their draft paper in abstract format (one page) or in full paper format to imecs@iaeng.org by 12 March, 2006. The submitted file can be in MS Word format, PS format, or PDF formats. The first page of the draft paper should include: Title of the paper; Name, affiliation and e-mail address for each author; A maximum of 5 key-

words of the paper; Also, the name of the workshop session that the paper is being submitted to should be stated in the email.

Important Dates:

Draft Manuscript/Abstract submission deadline: 12 March, 2006 Camera-Ready papers & Preregistration due: 2 April, 2006 IMECS 2006: 20-22 June, 2006

I.M. Premachandra

Welcome to EUROPT

The goal of EUROPT is to promote and to facilitate communication links among European (and other) researchers working in areas of continuous optimization. EUROPT was established with numerous founding members at a satellite meeting of the EURO XVII Conference in Budapest, July 16-19, 2000. EUROPT's kick-off workshop, the Second IPM Workshop (IPM-2000, 2000), was organized just before the EURO meeting. In the sequel, we had two further EUROPT workshops: The second one took place in Rotterdam, The Netherlands, July 2001, before EURO XVIII and was entitled Smooth and Nonsmooth Optimization, Theory and Applications. One year ago, we celebrated our third annual meeting called Workshop on Advances of Continuous Optimization in Istanbul, Turkey, July 2003, before the 5th EUROPT/INFORMS Joint International Meeting 2003. Recently, in July 2004, right before EURO XX, we had our fourth one entitled Workshop on Challenges of Continuous Optimization in Theory and Applications on Rhodes, Greece, and right after EURO XX, our 2-3 weeks of EURO Summer Institute XXII (ESI 2004) Optimization and Data Mining in Ankara, Turkey.

At the previous EURO conferences, EUROPT organized sessions and semi-plenary lectures on continuous optimization. Moreover, after both our various workshops and our ESI 2004, we began with the preparation of a special issue of European Journal of Operational Research. Two EJOR special issue appeared already, some further ones will appear soon; to these, we will come below.

For 8th SIAM Conference on Optimization 2005 (Stockholm, Sweden), 2 mini-symposia were held in the name of EUROPT, and a one closely associated with us. Furthermore, at IFORS 2005 (Hawaii), we had a session cosponsored. A Workshop on Sustainable Living in Rural Areas of Turkey in 2005 and a seminar

series supported by us at METU (Ankara) should not be forgotten here.

In 2005, EUROPT celebrated its 5th anniversary at the occasion of the very enjoyable EURO Mini Conference Continuous Optimization in the Industry, Pécs, Hungary, June 29 - July 1, 2005: happy birthday!

After that in 2004, engaged students - members of EUROPT - established the group Young People for Operations Research in the Developing Countries (YORC), in 2006, EUROPT submitted a proposal for a new EURO Working Group Operational Research for Development. We are happy and grateful that this proposal became accepted by EURO Executive Committee! We are looking forward to a small foundation ceremony at the occasion of EURO XXI 2006. Another application for a new EURO Working Group Operational Research in Computational Biology and Bioinformatics submitted is under evaluation. In fact, industrial applications, development, computational biology, but also data mining, were among those the applied scientific domains which EUROPT paid special attention to in 2005. As one expression of this, our group coorganized ISPRS 2005 Spatial Data Mining Workshop, Ankara, Turkey, November 24-25, 2005.

Moreover, in 2005, we finalized two further EJOR special issues, one of them called Optimization in Data Mining. The other one is entitled Challenges of Continuous Optimization in Theory and Applications. A further EJOR special issue Continuous Optimization in the Industry is in preparation.

What is more, in 2005, EURO EC also accepted our proposal for a EURO Summer Institute Optimization Challenges in Engineering: Methods, Software and Applications in Lutherstadt Wittenberg, Germany, August 18 - September 2, 2006. This ESI 2006 will be one of EUROPT's highlights in 2006, besides our 5th EURO Workshop Advances in Continuous Optimization, Reykjavik, Iceland, June 30 - July 1, 2006, and our rich engagement at EURO XXI 2006, Revkjavik, July 2-5, 2006. At the EURO conference, we are represented by 21 precious streams, some of them really pioneering in OR like, e.g., dynamical and anticipatory systems, data mining, electricity markets and optimization in financial mathematics, and a number of semiplenary lectures. In 2005 there were and in 2006 will even be further scientific events, where EUROPT is contributing to. For closer information please visit our links Scientific events, Journals and Reports.

During those well-enjoyed events and activities, and by further personal interest of colleagues, the number of EUROPT members increased to 440 until the beginning of 2006. Together we prepare a rich scientific life, common experiences and friendship for the best of the members of our group, of our people in Europe and the world!

If you are interested in EUROPT, please contact us! In case of your kind consideration and, maybe, your wish to join us as a member electronically, you are warmly welcome! We sincerely like to collaborate with you.

Objectives of EUROPT:

- to disseminate state-of-the-art knowledge and to support research in continuous optimization,
- to contribute to the education of young optimization researchers and students (organizing EURO Summer and Winter Institutes, and by announcing Ph.D. Programs etc.),
- to assist in gathering the continuous optimization community in Europe organized under the umbrella of EURO,
- to support preparation, refereeing and editing of publications,
- to establish regular information channels and regular meetings,
- to build links to users of continuous optimization methodology,
- to involve industrial organizations and users of optimization in the activities listed above,
- to initiate interdisciplinary research with colleagues from science, engineering and economy, with continuous optimization being a key technology,
- vivid exchange between scientific experience and enthusiasm of the youth,
- encouragement of building up a common and developing Europe, and
- deepening of peace and friendship in Europe and in the world.

http://www.iam.metu.edu.tr/EUROPT/

Gerhard-Wilhelm Weber

Meetings Calendar

New Zealand

ASC/NZSA 2006 The Australian Statistical Conference/ New Zealand Statistical Association Conference 2006, Auckland

3 – 6 July 200 www.statsnz2006.com

Asia Pacific

The Australasian Theory Symposium Hobart, Australia

January 16, 2006 - January 19, 2006 http://www-staff.it.uts.edu.au/~cbj/cats06

7th APORS Conference, Manila, Philippines

16 – 18 January 2006 http://www.orsp.org.ph/apors/

The International MultiConference of Engineers and Computer Scientists 2006 Hong Kong

20-22 June 2006

http://www.iaeng.org/IMECS2006/index.html

The Second International Intelligent Logistics Systems Conference 2006 Port of Brisbane, Australia

22 – 23 February 2006 http://www.logisticsresearch.qut.edu.au/

The First Pacific Rim International Workshop on Electronic Commerce, Tokyo, Japan

27 – 28 March 2006

http://www.nii.ac.jp/map/hitotsubashi-e.html

35th Western Decision Sciences Institute Conference Waikoloa, Hawaii, USA

11 – 15 April 2006 http://wdsinet.org/call.html

INFORMS International 2006 Hong Kong

25 – 28 June 2006

http://www.informs.org/Conf/Hongkong06/

International

INFORMS Optimization Society Conference on Optimization and Health Care 2006 San Antonio, Texas

3 – 5 February 3, 2006

http://www2.egr.uh.edu/~ginolim/informsOpt/

Information Systems in Transportation and Traffic at the Multikonferenz Wirtschaftsinformatik '06 Passau, Germany

20 – 22 February 2006 http://www.winfo.tu-bs.de/mkwi

International Conference on Mathematics of Optimization and Decision Making Pointe-a-Pitre, Guadeloupe, French Caribbean Islands

18 – 21 March 21 2006 http://gala.univ-perp.fr/

7th International Conference on Operations Research Havana, Cuba

27 - 31 March 31 2006

http://www.ifors.org/panorama/callfp/list/or7.doc

1st Nordic Optimization Symposium Copenhagen, Denmark

20 – 22 April 2006 http://www.nordicmps.org/

INFORMS Practice Conference 2006: Applying Science to the Art of Business Hotel InterContinental Miami, FL

30 April – 2 May 2006 http://www.informs.org/Conf/Practice06

The International Conference on Information Systems, Logistics and Supply Chain (ILS'06) Lyon, France

15 – 17 May 2006

http://www.fucam.ac.be/view.php3?include=34912&pere=20667&print=0

MOPGP'06 7th International Conference on Multiobjective Programming and Goal Programming, Tours, France

12 – 14 June 2006

http://www.univ-valenciennes.fr/ROAD/MOPGP06/

MCDM 2006 – The 18th International Conference on Multiple Criteria Decision Analysis

19 – 23 June 1006

Chania Greece

http://www.dpem.tuc.gr/fel/mcdm2006/

EURO XXI, 21st European Conference on Operational Research 2006 Reykjavik, Iceland

2 - 5 July 2 2006

http://www.euro2006.org

Officers of the Operational Research Society of New Zealand 2006

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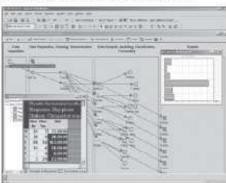
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