

asor news

Sep/ Oct/ Nov/ Dec 2008

The AUSTRALIAN SOCIETY for OPERATIONS RESEARCH Inc.
MELBOURNE CHAPTER

GPO Box 1048, Melbourne, Vic 3001

Editor: Harry Gielewski

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Chairman's Christmas Message

Once again we come to the period before Christmas where it is appropriate to reflect on the past year of the Melbourne Chapter of ASOR. The chapter is relatively stable in membership and has had monthly talks on almost each occasion. It would be nice if attendance at these talks could be lifted and we look forward to other members giving talks on fresh fields in the year ahead.

The student conference and Recent Advances meeting were merged this year and held very successfully at Deakin University in Burwood. Once again thanks are due to Vicky Mak and Kaye Marion for their combined efforts in making this annual event a success!

I remind all members that in the coming year we will have the national conference hosted by the Queensland chapter in the Gold Coast at the Holiday Inn in September. This will give members an opportunity to show their current research and view the range of operations research which is taking place in Australia.

The committee has spent substantial effort on preparations for the IFORS conference to be held in Melbourne in 2011. In the coming months plans will begin to unfold for the details of this conference. An organizational committee has been established with myself as Chair, Paul

Lochert as treasurer and Kaye Marion as secretary with Baikunth Nath, John Hearne and Natasha Boland assisting as members. The organizational committee will draw on the help of other members and stakeholding organizations as the preparations continue. Following discussions with the IFORS executive and with some input from Natasha, it was decided to appoint Janny Leung as programme secretary for the conference. Dr Leung has an excellent background for this role and brings extensive connections to Asian and American OR links. Already over 40 people have agreed to participate in producing specific streams for the conference and assist on the programme committee. We naturally look to our local members to swell the ranks of this committee! Kaye Marion and I both attended the IFORS conference at Sandton in South Africa this past July to speak to delegates and maintain a very visible advertising presence for the next conference in Melbourne. (see attached pictures)



Feedback was very positive (people especially loved the toy koalas we gave out!) and we had several meetings with the IFORS executive at that time.

In the coming year the IFORS executive will visit Melbourne to inspect the options for the conference—in particular the new conference centre. This visit should see our plans take shape for more general view. It is appropriate to thank ICMS who have provided conference support to date (as yet without



formal contract!) Barry Markey came with us to South Africa to inspect the conference and gather ideas for the next conference. It is planned to maintain momentum with significant advertising



presence and/or putting up booths at a number of major international conferences in the next two years to ensure we have a good turnout for the IFORS2011. Members are urged to view the website periodically, maintain an interest and assist where possible. On the subject of the webpage, the National committee has resolved to try to update and improve the extant ASOR webpage in the coming months. Ideas are always welcome.

Challenges which remain for the chapter include lifting student participation, increasing activity in monthly meetings and ensuring more membership participation in ASOR business including the chapter committee which has had a rather stable membership over time. It is a suitable time for me to thank all the committee for their help and work during the past year making the local OR scene more lively.

On behalf of the committee I wish all members a safe and enjoyable festive season and look forward to meeting you in the year ahead at our various functions.

Best Wishes

Patrick Tobin
Chairman
ASOR Melbourne Chapter

From the Editor

The subscription notices, as well as Committee nominations forms and a call for nominations for the ASOR Student prize, will be posted with this newsletter edition. In case of errors, please contact a member of the committee.

Note the call for nominations for the ASOR Ren Potts and New Researcher Encouragement medals. Details for these and all major ASOR events can be found at <http://www.asor.org.au/page.php?page=1>.

Wishing all ASOR members and their families a Merry Christmas and if not Prosperous, a Happy New Year,

Harry

Report on the September Meeting *Winning by Losing*

Speaker: Nick Beaumont

Bridge is widely played card game both socially and competitively. There are some 50,000 registered bridge players in Australia and regular competitions are held.

Nick introduced the basics of the game and the structure of a competition. A competition involving 58 pairs was then examined in detail. Each pair is matched with a pair of comparable standard based on some historical "ranking". All 29 tables then play a round composed of 8 pre-prepared hands. At the end of the round scores for each pair are compared with all equivalent pairs and an adjusted score computed. Based on these scores the pairs are re-ranked, matched and another round is played. This process is repeated a number of times throughout the tournament. At the end of the tournament pairs ending in the top half gain "red" points which accumulate and are a measure used in subsequent ranking.

Obviously a pair hoping to win overall will try to win every hand and round. The issue of interest is for a moderate to weak pair is there a strategy to try and ensure that they end in the upper half and maximise their "red" points.

Nick considered several strategies and compared the benefit.

Example of strategies

Strategy 1: Try to gain maximum points in every round.

Strategy 2: Deliberately lose in round 1 implying easier opponents in round 2

Try to win in round 2

Try to lose in round 3

Etc to the end of the tournament.

Nick was able to show a clear benefit in strategy 2 over 1 for a moderate to weak pair with clearly superior final result hence leading to more “red” points.

The existence of such strategies that would encourage a pair to deliberately lose implied that the scoring system should be reviewed.

An entertaining evening. Thanks Nick.

Paul Lochert

ASOR Recent Advances in OR

Date: Wednesday, 26th November, 2008

Location: Lecture Theatre 10, Building L, School of Engineering and Information Technology Deakin University (Burwood Campus)

Mr. Mehmet Ozmen (PhD Candidate, Monash Uni)
Impact of oil prices and the level of pass through of costs as a proxy for carbon taxation responses

Dr. Santosh Kumar
Some work on Pure Integer Programming

A Prof. Moshe Sniedovich (Melbourne Uni)
The Rise and Rise of Voodoo Decision Theories

Dr Tristan Barnett (Strategic Games)
Gambling Your Way to New York

Dr. Bruce Craven (Melbourne Uni)
Stock market returns, correlations, and what does GARCH mean

Prof Kate Smith-Miles (Deakin University)
Learning the relationships between optimisation algorithm performance and problem structure

Mr. Luke Mason (PhD Candidate, Deakin Uni)
An exact method for the minimum cardinality problem in the planning of IMRT

Miss Daphne Do (Honours, Melbourne Uni)
Formulating and modeling robust decision-making problems under severe uncertainty

Dr. Kerem Akartunali (Melbourne Uni)
A heuristic approach for big bucket multi-level production planning problems

Miss Jackie Rong (PhD Candidate, Deakin Uni)
Extracting effective feature set for speech based emotion recognition

An impressive set of topics – An encouragement to attend next year’s event. Abstracts are available for almost all of the presentations.

Harry

Call for ASOR Medal Nominations

The Ren Potts award of the Australian Society for Operations Research

The Ren Potts award of the Australian Society for Operations research is intended to recognise individuals who have made outstanding contributions to theory or practice of OR in Australia. It is a national award restricted to Australian residents only.

ASOR New Researcher Encouragement Medal – 2009

At a recent meeting held on October 17, 2008, the ASOR National Council established an encouragement medal for new researchers who have completed a research degree at Master or PhD level in OR or in a related field with significant contribution to the advancement of OR from any Australian university. Normally candidates will be considered who completed all requirements for their degree between the two consecutive ASOR National conferences. Since this award is offered for the first time, all candidates who have completed their degree requirements after August 2005 are considered eligible to enter this competition.

Further information, including detailed award criteria, can be found at <http://www.asor.org.au/award/page.php?page=1>

For both awards, nominations should be sent to Andrew.Higgins@csiro.au by May 31, 2009.

Awards will be conferred at a special ceremony to be held during the National conference, taking place on the Gold Coast, between September 27-30, 2009.

Current Jobs Advertisements

CSIRO is Australia's largest scientific research agency, delivering outcomes of benefit to the Australian economy, society and environment through excellence in science and technology. We are looking for five talented mathematicians and statisticians to join our team in Melbourne. The positions range across a variety of areas, including sensor networks, real-time monitoring, stochastic modelling and optimisation, operations research and mathematical modelling.

Full details of these positions, including salary ranges and selection criteria, are available at

Statistician:

https://recruitment.csiro.au/asp/job_details.asp?RefNo=2008%2F1413

Stochastic Modelling/Operations Research:

https://recruitment.csiro.au/asp/job_details.asp?RefNo=2008%2F1414

Operations Research:

https://recruitment.csiro.au/asp/job_details.asp?RefNo=2008%2F1415

Mathematical and Molecular Modelling:

https://recruitment.csiro.au/asp/job_details.asp?RefNo=2008%2F1424 (2 positions)

Applications close on 28 January 2009.

What Else is On

Victorian Statisticians

The Statistics Society of Australia (in Victoria), typically has meetings on every 3rd Tuesday of the Month starting in March 2009.

For latest information check at:

<http://www.statsoc.org.au/vic-branch-meetings.htm>

The AOQ (Vic)

The Australian Organisation for Quality typically has forums on the 3rd Thursday of each month. The next forum is scheduled for February 2009.

For the latest information – <http://www.aoqvic.org.au>

Conferences

Don't forget the IFORS 2011 conference in Melbourne – details will be posted soon.

The 20th National Conference of Australian Society for Operations Research
Making the Future better by Operations Research

27 - 30 September 2009

Holiday Inn, Surfers Paradise

Further information at:

<http://www.asor.org.au/conf2009/index.php?page=1>

Web Pages of Interest

We are affiliated with FASTS through AMSC
To keep abreast of FASTS activities
consult : <http://www.usyd.edu.au/fasts/>

ASOR National: <http://www.asor.org.au/>

Melbourne Chapter

<http://www.asor.ms.unimelb.edu.au/melbourne>

The new website for ASOR - Sydney is:

<http://www.asor-sydney.asn.au/>

NZ OR Society <http://www.orsnz.org.nz/>

ORS (UK): <http://www.orsoc.org.uk/>

INFORMS (US): <http://www.informs.org/>

IFORS: <http://www.ifors.org>

For the latest International news, conference and jobs details see:

<http://www.ifors.org/panorama/index.html>

tutOR: <http://www.tutor.ms.unimelb.edu.au>

CSIRO's Double Helix Club <http://www.csiro.au/>

The electronic version of the ASOR Bulletin Dec 2008 issue is now available for download at the following URL:

<http://www.asor.org.au/publication/page.php?page=1>

Committee Membership for 2008/9

Chair – Patrick Tobin 9953 3199
email: Patrick.Tobin@acu.edu.au

Vice Chair - Henry Burley 9458 1872
email h.burley@latrobe.edu.au

Secretary - Kaye Marion 9925 3162
email: k.marion@rmit.edu.au

Treasurer - Paul Lochert 9802 4628
email: plochert@bigpond.net.au

Minute Secretary – to be appointed

Committee – Harry Gielewski 9350 4726
email: harrygie@ozemail.com.au

Tristan Barnett 0402 025 334
email: strategicgames@hotmail.com

Moshe Sniedovich 8344 5559
email: m.sniedovich@ms.unimelb.edu.au

Office Manager – Kaye Marion 9925 3162
email: k.marion@rmit.edu.au

Newsletter Editor – Harry Gielewski 9350 4726
email: harrygie@ozemail.com.au

Student Representative – vacant

Ex Officio: - Baikunth Nath 8344 1400
email: baikunth@unimelb.edu.au
bnath@csse.unimelb.edu.au

\$500 reward

Wanted



**Student Operations
Research Scholarship
Applicants**

The winner will receive \$500, presented at the annual ASOR Student Conference.

Written applications should be sent to (by 31 March 2009)
Student OR Scholarship Subcommittee

ASOR Melbourne Chapter,
GPO Box 1048,
Melbourne 3001.



Applicants should include personal details, academic record, at least two referee reports and details of any project or thesis they might be completing or have completed as part of their studies. The successful candidate must be enrolled for Honours or Postgraduate studies in 2009 which requires the completion of a thesis and/ or a project on an OR related topic.



GPO Box 1048, Melbourne, Vic 3001.

Phone: (03) 9925 3162 Fax: (03) 9925 2454

ASOR MELBOURNE CHAPTER NOMINATION FORM

I, _____ (Block letters please)

being a financial associate/member of the Melbourne Chapter of ASOR,

hereby nominate

_____ (Block letters please)

for the position of

_____ of the chapter for 2009.

Proposed: _____

Seconded: _____

Nominee: _____

To be returned by Wednesday 11th March 2008 to **Kaye E. Marion** at the address above

or to

Dr Patrick Tobin,

Chair, Melbourne Chapter of ASOR,

School of Arts and Sciences (Vic),

Faculty of Arts and Sciences,

St Patrick's Campus, ACU,

115 Victoria Parade,

Fitzroy Vic 3065

email: Patrick.Tobin@acu.edu.au