

Combinatorics

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The newsletter of the
Combinatorial Mathematics Society of Australasia

ANNUAL SUBSCRIPTIONS



If there is a tick here, your membership fee is now due.
Please send \$5 in Australian currency to the Treasurer of
CMSA, (adding \$2 to foreign cheques to cover bank charges).

If you are interested in the 1989 conference,
please be sure to fill in and return
the new form
enclosed in this newsletter.

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Editor, Booklet Series

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Division of Computing & Mathematics
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COMBINATORIAL MATHEMATICS SOCIETY
of
AUSTRALASIA

The Combinatorial Mathematics Society of Australasia was formed in 1978, with the aim (as stated in its constitution) of promoting combinatorial mathematics; this has been broadly interpreted as including the relevant areas of computing. It disseminates information about combinatorics and combinatorialists through its newsletter *Combinatorics* and conducts an annual conference with refereed published proceedings. There are currently about 120 members from all over the world.

Any interested person is invited to join the C.M.S.A. Annual subscription for 1989 is Australian \$5, payable to C.M.S.A. Members receive the newsletter and a reduction in the conference registration fee. Please address all enquiries, giving your full name and address, to Diane Donovan or Elizabeth Billington at the address given overleaf.

The Sixteenth Australasian Conference on Combinatorial Mathematics and Combinatorial Computing will be held at Massey University, 3-7 December, 1990. For further information on this conference, please write to

Dr C.H.C.Little,
Dept of Mathematics and Statistics,
Massey University, Palmerston North, New Zealand.

The Centre for Communications Security Research (CCSR) has been set up in the

Dept of Computer Science,
University College, University of New South Wales,
Australian Defence Force Academy, Canberra, ACT 2600, Australia,
by Professor Jennifer Seberry (Director), Dr Rey Safavi-Naini and Dr Josef Pieprzyk, with a \$455,000 contract from Telecom Australia. Anyone with appropriate qualifications in combinatorics, cryptography or number theory, interested in working on contract with CCSR, may obtain further information by writing to Professor Seberry, at the address given above.

Professor R.G.Stauton (University of Manitoba) will receive an honorary D.Sc. from the University of Queensland in August, 1989.

Professor W.D.Wallis (Southern Illinois University at Carbondale) has won the 1988 Outstanding Researcher Award, given by SIUC's College of Science. This award recognises faculty members for outstanding research achievements over a number of years.

FIFTEENTH AUSTRALASIAN CONFERENCE
on
COMBINATORIAL MATHEMATICS
and
COMBINATORIAL COMPUTING

The Fifteenth Australasian Conference on Combinatorial Mathematics and Combinatorial Computing will be held at the University of Queensland, Brisbane, Queensland, during the week 10-14 July 1989. All interested persons are cordially invited to attend, and contributed papers are welcome in all areas of combinatorics and combinatorial computing, pure and applied. **Invited speakers** include C. C. Lindner (Auburn), B. D. McKay (A.N.U.), R. C. Mullin (Waterloo), A. Rosa (McMaster), D. R. Stinson (Manitoba), R. Tamassia (Illinois), C. Thomassen (Tech.U.Denmark) and N. Wormald (Auckland).

At least one half-day session will be devoted to combinatorial algorithms. If you have software you are willing to demonstrate at the conference, please get in touch with Dr Peter Eades, Dept of Computer Science, Univ. of Queensland, St Lucia, Qld 4067, and let him know what computing facilities you will need.

The conference registration fee is A\$65 (members), A\$75 (non-members).

The conference proceedings will be published by *Ars Combinatoria*, subject to the usual arrangements for refereeing.

Accommodation is available in Cromwell College, on the University of Queensland campus, at \$34 per day for bed and breakfast.

Registration will start on the evening of **Sunday, 9th July**, in Cromwell College; wine and cheese will be served. There will be a cocktail party on **Monday, 10th July**, and a film evening at Schonell Theatre on **Tuesday, 11th July**, followed by cake and coffee in the Staff Club.

The conference excursion, on the afternoon of **Wednesday, 12th July**, will be a boat trip on the Brisbane River from the University of Queensland to Newstead House and the Gateway Bridge, and will include lunch on board and a tour of Newstead House. This will cost no more than \$20; bring all your friends and it will work out to much less.

The conference dinner will be held on the **Thursday evening** and will take the form of a barbecue, for which we have booked the covered patio at the back of the Staff Club, overlooking the University Lake. If the weather is uncomfortably cold (possible, but not very likely), we'll have access to the Members' Bar. The cost will be \$10, for nuts and chips before dinner, four salads, steak or vegetarian mushroom parcels, coffee and chocolate mints. Drinks and desserts will be available in addition. The Annual General Meeting of CMSA will be held before the dinner.

The registration form (second circular) is enclosed. Please register early if you are coming, to give us an accurate indication of the numbers who plan to attend the conference; to give a talk and to stay in Cromwell College.

The third circular will be sent in April. **Deadline for abstracts is 10th June.**

COMBINATORIAL MATHEMATICS SOCIETY of CHINA

The Combinatorial Mathematics Society of China (CMSC) was formed in 1988.

CMSC has set up a new organisation, the International Advisory Centre of Information and Material of Combinatorics (IACIMC), to gather papers and books on combinatorics, and to serve combinatorialists everywhere. All materials on combinatorics will be welcome.

CMSC and the Hefei Branch of Academia Sinica are jointly organising an International Conference on Combinatorial Mathematics (ICCM), to be held in Hefei during the period 13th–18th July, 1990. (This date is still tentative.) The sessions at the conference will cover a wide range of combinatorial topics, including combinatorial designs, coding theory, combinatorial group theory, combinatorial matrix theory, combinatorial set theory, enumeration, finite geometries, graphs, hypergraphs and networks, magic squares, combinatorial identities, combinatorial optimisation, difference sets, combinatorial algorithms, matroids, Ramsey theory, history of combinatorics and applications.

For further information about ICCM, please write to the local organiser,
Professor Ku Tung-Hsin,
Hefei Branch Research Group of Combinatorial Mathematics,
Academia Sinica,
P.O.Box 10, Hefei 230031, Anhui,
People's Republic of China.

War Eagle VI
announces the

Second Auburn Design Theory Conference

to be held during 22–25 March, 1989, organised by the Combinatorics group at Auburn University (D.Hoffman, P.Johnson, D.Leonard, C.Lindner, K.Phelps, C.Rodger, L.Teirlinck) and sponsored by the National Security Agency. The invited speakers are A.R.Calderbank (AT&T Bell Laboratories), J.Doyen (Brussels), F.Piper (London), A.Rosa (McMaster) and R.M.Wilson (CalTech).

For further information concerning the conference, write to
Professor C.A.Rodger,
Dept of Algebra, Combinatorics and Analysis,
Auburn University, Auburn, Alabama 36849–5307, U.S.A.

Book Announcement

Cryptography: An Introduction to Computer Security
by Jennifer Seberry and Josef Pieprzyk, Prentice Hall Australia (1989);
ISBN 0-7248-0274-6 (paperback), 0-13-194986-1 (hardback).

University of Otago

Workshop on Combinatorial Mathematics

Second Notice

As previously announced the Workshop will take place over the period February 1st to 18th 1989. Attending the Workshop will be Professor K. Heinrich and B. Alspach of Simon Fraser University. We also hope that Professor P. Lorimer, Auckland University, Dr C.H.C. Little, Massey University, Dr B.D. McKay, Australian National University, Professor Zhang Ke Min, Nanjing University, China and Professor E.S. Mahmoodian, Sharif University of Technology will all be present for some part of the Workshop.

Registration will take place at 9.15 a.m. on Wednesday February 1st in the Mathematics Department.

Accommodation will be available in Knox College. Full board will cost \$52, bed and breakfast \$32, each day. Could you please indicate for which days you require accommodation. We can probably reserve a room for you for a few days at either end of the Workshop.

The format of the Workshop will be as follows. On the first two days open questions will be posed. It is expected that the poser will provide background and motivation for each question. On subsequent days we will break into groups which will work on particular problems. From time to time there will be talks of an hour's duration. There will be no more than one talk per day.

Could you forward to me any problems you wish to pose (try to keep these to half a page) as soon as possible so that they can be collated and then distributed on the first day of the Workshop.

Derek Holton
Department of Mathematics & Statistics
University

Name

Address

I shall attend the Workshop on the following days

February	1	2	3	4	5	6	7	8	9
	10	11	12	13	14	15	16	17	18

(circle appropriate dates)

I wish to stay at Knox College for the above period

..... nights full board

..... nights bed and breakfast

I shall arrive in Dunedin on flight on (date)

at (time).

I would appreciate being picked up at the airport. Yes / No

I would like to stay in Knox College for the following period outside the

Workshop dates: -----

The problems I wish to pose are attached. (please tick)

Please return the completed form to

Derek Holton
 Department of Mathematics & Statistics
 University of Otago
 P.O. Box 56
 Dunedin
 NEW ZEALAND

**Fifteenth Australasian Conference
on
Combinatorial Mathematics
and
Combinatorial Computing
10th-14th July, 1989
University of Queensland**

**Second Circular
Registration Form**

If you are coming to the conference, please fill in this registration form and return it to

The Secretary, CMSA
Department of Mathematics
University of Queensland
St. Lucia
Queensland, Australia 4067

Name (title) and address:

Do you wish to give a talk?

If so, title(approx):

Deadline for abstracts (max length 150 words) is 10th June.

Do you want accommodation in Cromwell College?

If so, for how many people?

Arrival date (and time):

Departure date (and time):

Do you wish to attend the film evening?

(film is still to be selected)

Do you wish to go on the excursion?

Do you wish to attend the conference dinner?