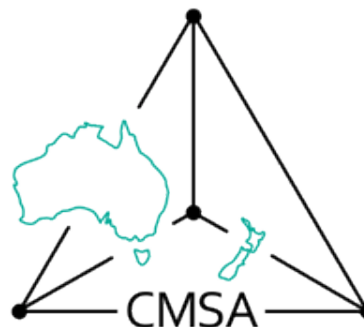


Combinatorial Mathematics Society of Australasia

Newsletter 70: July 2024



Incorporated 8 July 1996

Introduction

Thanks to all CMSA members who have sent information for this newsletter.

Please send news as soon as you have anything of interest to CMSA members and the combinatorial community, even if no newsletter is imminent. Email items to the Newsletter Editor: kevin.mcavaney@ozemail.com.au. Only in plain text please.

Closing date for Newsletter 71: 30 September 2024.

Old newsletters can be found [here](#).

Workshop and conference announcements

46ACC December 2024

The 46th Australasian Combinatorics Conference (46ACC) will be held at The University of Queensland, Brisbane, Australia, 2–6 December 2024.

It will include invited talks, contributed talks in parallel sessions, the conference dinner, a presentation of the CMSA Anne Penfold Street Student Prize for the best student talk at the conference, an excursion, and the CMSA Annual General Meeting. Registration will automatically include a one-year membership of CMSA, if not already a life member.

Researchers in any area of discrete mathematics and its applications are warmly invited to attend and to contribute a talk.

The invited speakers for 46ACC are:

- Alice Devillers (University of Western Australia)
- Melissa Lee (Monash University)
- Florian Lehner (University of Auckland)
- Anita Liebenau (UNSW Sydney)
- Jie Ma (University of Science and Technology of China)
- Sam Mattheus (Vrije Universiteit Brussel)
- Anita Pasotti (Università degli Studi di Brescia)
- David Wood (Monash University)

Organising Committee: Sara Davies, Barbara Maenhaut, Darryn Bryant.

Early bird registration deadline: 1 November 2024.

Deadline for submission of abstracts: 15 November 2024.

Contact: 46acc@uq.edu.au

Website: <https://46acc.github.io>

More combinatorics conferences

[Graphs and Groups, Complexity and Convexity \(G2C2\)](#),
Hebei Normal University, Shijiazhuang, China, 11–25 August 2024

[Combinatorics and Geometry in Ioannina](#),
Ioannina, Greece, 2–6 September 2024

[32nd Workshop on Cycles and Colourings](#),
Poprad, Slovakia, 8–13 September 2024

[27th Workshop on Future Research in Combinatorial Optimization \(FRICO 2024\)](#),
Magdeburg, Germany, 9–13 September 2024

[10th Polish Combinatorial Conference \(10PCC\)](#),
Bedlewo, Poland, 15–21 September 2024

[New Perspectives in Colouring and Structure \(24w5272\)](#),
Banff, Canada, 29 September – 4 October 2024

[35th Midwestern Conference on Combinatorics and Combinatorial Computing \(MCCCC 35\)](#),
Duluth, Minnesota, USA, 18–20 October 2024

[6th Workshop on Enumeration Problems and Applications \(WEPA 2024\)](#),
Kinugawa-onsen, Nikko, Japan, 19–22 October 2024

[11th Latin American Workshop on Cliques in Graphs \(LAWCG 2024\)](#),
Ceará, Brazil, 20–23 October 2024

[Workshop on Mathematical Cryptography](#),
Auckland, New Zealand, 16–18 December 2024

[Canadian Discrete and Algorithmic Mathematics Conference \(CanaDAM2025\)](#),
Ottawa, Canada, 26–29 May 2025

[47th Australasian Combinatorics Conference \(47ACC\)](#),
Victoria University of Wellington, New Zealand, December 2025. Dates TBD.

Recent news

Report on Combinatorics in Christchurch

The conference Combinatorics in Christchurch was held at the University of Canterbury, Christchurch, New Zealand, from 4 to 6 June 2024.

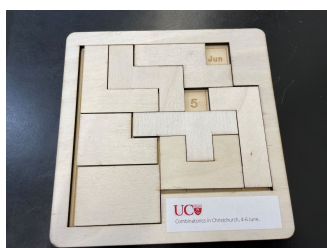


The keynote speaker was Bill Martin (Worcester Polytechnic Institute, USA) who gave a 90 minutes talk *Lines with two angles*. The other invited speakers each gave a 50 minute talk:

- Carmen Amarra (University of the Philippines Diliman), *Block-transitive, point-imprimitive 2-designs*
- John Bamberg (The University of Western Australia), *Two-character caps of finite projective spaces*
- Gary Greaves (Nanyang Technological University, Singapore), *Edge-regular graphs with regular cliques*
- Anita Liebenau (University of New South Wales Sydney), *Ramsey with purple edges*
- Jeroen Schillewaert (University of Auckland), *Geometric and combinatorial group theory*
- Sho Suda (National Defense Academy of Japan), *Uniqueness of an association scheme obtained from Hoggar's 64 lines in C^8*

There were 13 contributed talks covering topics that included algebraic combinatorics, combinatorial group theory, and extremal graph theory.

All participants received a combinatorial calendar puzzle in their conference bag. Here are the solutions for each of the three days of the conference.



We are very grateful for the financial support of the Faculty of Engineering of the University of Canterbury, the New Zealand Mathematical Society (NZMS), and the Institute of Combinatorics and its Applications (ICA).

We are happy to look back at a succesful event that brought the (sizeable!) combinatorics community of New Zealand together for a short conference. It would be great if a similar event were to be held somewhere in New Zealand in the future!

Geertrui Van de Voorde and Jesse Lansdown (organisers).

CMSA Seminars

Recent seminars in this online series were by:

- Abdul Basit, Monash University, 10 Apr 2024, *On the shatter function of semilinear set systems*
- Rose McCarty, Georgia Institute of Technology, 24 Apr 2024, *Prime distances in colorings of the plane*
- Valentina Pepe, Sapienza University of Rome, 8 May 2024, *On some finite geometry structures related to extremal graphs*
- Mihyun Kang, Graz University of Technology, 22 May 2024, *Supercritical percolation and isoperimetric inequalities*

For abstracts and forthcoming seminars visit <http://combinatorics-australasia.org/seminars.html>

ICA awards

The Institute of Combinatorics and its Applications recently announced that it has awarded [Prof Cheryl Praeger](#) an Honorary Fellowship for pre-eminent contributions to combinatorics, and [Prof Jennifer Seberry](#) an Euler Medal for distinguished lifetime career contributions to combinatorial research. Congratulations to Cheryl and Jenny, both longtime supporters of CMSA.

Monash University

The School of Mathematics has available a 2.5 year postdoctoral [research fellowship](#) working on fractional edge-decompositions of graphs. The successful applicant will work with Daniel Horsley, Darryn Bryant (University of Queensland), Barbara Maenhaut (University of Queensland), and Peter Dukes (University of Victoria, Canada). Applications close on 26 July 2024.

Joint tri-society Meeting

There will be a joint meeting of the New Zealand, Australian, and American Mathematical Societies in Auckland NZ, 9–13 December 2024. The program includes several plenary speakers, several general contributed talks, and 42 special sessions including one on Algebraic Combinatorics and Matroids. For more information visit <https://ms-meet-2024.blogs.auckland.ac.nz/>

International Congress of Mathematicians 2026

The International Mathematical Union is holding [ICM2026](#) at Philadelphia, USA, 23–30 July 2026. The ICM Structure Committee (chaired by Terence Tao) has proposed a program of 20 sections, including one on Combinatorics. Nominations are sought for plenary and sectional speakers. They should be sent by 1 Nov 2024 to the Program Committee chair [Claire Voisin, chair@pc26.mathunion.org](mailto:chair@pc26.mathunion.org).

An Outreach Opportunity

Maths Challenge is a unique open style annual problem-solving program designed to support and encourage mathematically gifted students from years 3 to 10 and their teachers. It is produced by the Australian Mathematics Trust and has been running for 34 years. There are over 15000 entries in a typical year. The problems and teacher guides are prepared by a committee of up to 16 committed volunteer teachers, educationalists, and mathematicians. More details are available in my ZDM paper [Mathematics Challenge for Young Australians](#). There is currently a vacancy on the committee for a mathematician who is keen to foster enthusiasm for mathematics amongst our future analytical thinkers. If interested, please contact the Committee Chair kevin.mcavaney@ozemail.com.au

The Australasian Journal of Combinatorics

[AJC](#) is a ‘diamond open access’ journal: online and free for readers and authors. There are three volumes per year, closing in about February, June and October. Each volume has three parts. [Volume 89, Parts 1, 2, 3](#) are now available, as are all volumes back to Volume 1.

Visit [here](#) to register for email notices whenever new papers are published.

Submissions to the Australasian Journal of Combinatorics may be sent to ajc@maths.uq.edu.au. Only pdf files are required at submission stage.

The Journal is now indexed by Scopus from Volume 13 (1996) onwards, and by Clarivate Analytics ‘Emerging Sources Citation Index’ from 2015 on.

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