

# SHORT CIRCUIT

Newsletter of the Canberra Mathematical Association INC

## Coming Events:

14 November—AGM

Wednesday Workshops:

## NEWS AND COMMENT

The CMA annual conference has again been successful in bringing together participants from the public and private sectors of education and from all levels. Approximately 175 people attended in all.

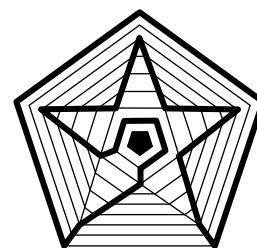
Particularly well received were the keynote addresses. From the University of Canberra STEM Education Research Centre, Professor Tom Lowrie spoke about the work of his team in *Spatial reasoning in the classroom*; and from the ANU school of Engineering and Computer Science, Genevieve Bell spoke engagingly on *Managing the machines*—a project concerning anthropological awareness and input in developing technologies.

The conference organising subcommittee has received positive responses from several presenters who felt that their talks were appreciated by their

audiences. Papers and materials from some of the presentations are now accessible on the CMA website.

The organisation of an event like the CMA conference is a remarkable thing. It has many moving parts and complex interactions, all managed voluntarily by a few mathematics teachers. There will always be a need for new people from the CMA membership to contribute to this and other CMA projects. If you wish to offer your services, please raise your hand at any time or attend the AGM on 14 November when a new committee will be formed.

At the time of writing, the AGM venue is yet to be confirmed. The details will be sent out soon via the CMA e-mailing list.



VOLUME 9 NUMBER 4

SEP 2018

## MEMBERSHIP

CMA memberships expire on **31 Dec. each year**

A membership application form can be accessed from the CMA website:

<http://www.canberramaths.org.au>

CMA membership includes automatic affiliation with the Australian Association of Mathematics Teachers and a full-year subscription to a AAMT journal.

Members are entitled to attractive rates for CMA professional development events and the annual conference.

CMA members may attend conferences of other AAMT affiliates, MAV, MANSW, etc. at member rates.

Note: Receipts for membership and other payments are sent out by e-mail. If you have paid for your membership but have not received a receipt or if your AAMT journal(s) have not been arriving, please advise CMA treasurer Paul Turner or another committee member.

**CANBERRA  
MATHEMATICAL  
ASSOCIATION**

### PUZZLES

1. The Fibonacci sequence begins with the terms (1, 1, 2, 3, 5, 8, ...) and continues by making each new term the sum of the previous two.

The number 8 is in the sequence and we note that it is a power of 2. Does there exist a Fibonacci number that is a power of 3 (greater than 3 itself)?

2. From *The Treviso Arithmetic* (1478):

THE HOLY FATHER sent a courier from Rome to Venice to reach Venice in 7 days.

The Signoria of Venice sent a courier to Rome to reach Rome in 9 days. The distance was 250 miles. In how many days will they meet?

3. Chris Cahill sent this in. It was given to a primary school class. We suspect it was too hard for them and wonder whether the collective wisdom of Canberra teachers might produce a solution.

Gloria has a large garden which often is affected by drought. In an attempt to increase moisture retention in the soil she has bought a bottle of Wettasoil. According to the label she can add 3 mL of Wettasoil to a 9 L watering can of water every time she waters her plants. She has a measuring cup that measures 30 mL with 5 mL gradations. She also has a measuring jug which measures 250 mL in 50mL grad-

uations.

How could she use these measuring instruments to ensure she has only 3 mL of Wettasoil added to 9 L of water?

### FELLOWSHIP

2018 GEORGE ALEXANDER FOUNDATION FELLOWSHIPS

Three (3) Fellowships are available to Australian residents aged between 18–35 years in the areas of environment and sustainability, alternative energy, conservation, and education. The Fellowships are for \$10 000 each and provide an opportunity for individuals to acquire higher-level skills and drive leading practice and innovation in Australia. It is intended that the Fellowship will demonstrate potential benefits for, and application in, Australia.

Applications close 28 September 2018. For more information, go to

[www.issinstitute.org.au/fellowship-applications](http://www.issinstitute.org.au/fellowship-applications).

### CONFERENCE

15TH INTERNATIONAL CONFERENCE OF THE MATHEMATICS EDUCATION FOR THE FUTURE PROJECT

*Theory and Practice: An Interface or A Great Divide?*

4-9 August 2019, Maynooth University, Kildare, **Ireland**

The Mathematics Education for the Future Project was founded in 1986 to develop innovation in mathematics, statistics, science and computer education. Since 1999 there have been 14 conferences throughout the world. The conferences are renowned for their friendly and productive atmosphere and attract many of the movers and shakers in education world-wide.

Download the first announcement and call for papers: <http://directorymathsed.net/public/Ireland/IrelandConferenceFirstAnnouncement.docx>

For queries, email: [alan@cdnalma.poznan.pl](mailto:alan@cdnalma.poznan.pl)

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## SHORT CIRCUIT

### IM<sup>2</sup>C RESULT

Teams from three ACT schools performed exceptionally well in the 2018 International Mathematical Modelling Challenge.

Coordinated by the Australian Council for Educational Research (ACER), IM<sup>2</sup>C is a mathematical modelling competition that invites teams of up to four students from secondary schools to visualise, understand and apply mathematics in order to develop an original mathematical model that solves a common problem.

Teams this year were asked to develop a decision-making model: deciding which hospital would be the best choice for non-emergency treatment.

In the first round of judging, the team from Radford College, advised by Kym Palfreman, was judged Meritorious.

The teams from Lyneham High School, with team advisor Rajesh Prasad, and from Marist College, advised by Tony Zhang, were awarded Honourable Mentions.

The Radford College team then went on to the next stage where, among the 55 team entries from 30 countries and regions around the world, its report was the only one to receive the ‘outstanding’ designation from the international judging panel.

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### reSOLVE

The reSolve—maths by inquiry project has a revamped website: <https://www.resolve.edu.au/>

The reSolve [newsletter](#) issue 9, September 2018 is now available.

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### CONTRIBUTE TO SHORT CIRCUIT

Short Circuit welcomes your contributions and your feedback. Communicate with us through the CMA email address: [canberramaths@gmail.com](mailto:canberramaths@gmail.com)

### TEACHING AWARDS

Nominations are now open for the **2019 Commonwealth Bank Teaching Awards**. Twelve recipients will each be awarded \$45 000 for professional development, an overseas education visit and to fund a project at your school.

The Awards are open to all registered teachers and school leaders currently working in any Australian school. Nominate a colleague or apply yourself. Applications close 27 September, with winners to be announced at a ceremony in Sydney in March 2019. For more information go to

[www.teachingawards.com.au](http://www.teachingawards.com.au).

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### AAMT—RESOURCES CATALOGUE

Download the catalogue of all the resources sold by AAMT from:

[AAMT ResourcesCatalogue 2018.pdf](#) 1.65 MB

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### CMA MERCHANDISE

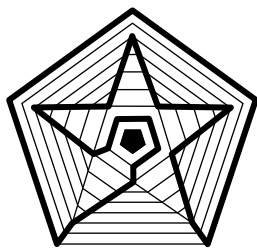
CMA has items for sale including:

Canberra Mathematics Association Navy Polo shirts \$36, Pi Earrings \$15, Easy as Pi badges and Pi pins \$8.

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### AAMT—MATHS 300

FINALS TIME! Whether you follow AFL or NRL, you can engage your students in finals fever and mathematics—courtesy of Maths300! For a limited time, the *Finals Time!* lessons and accompanying software will be available to access for free. The lessons involve students in a simulation of the ‘final eight’ while learning about both the final structure and the underlying mathematics. Go to [www.maths300.com/sample](http://www.maths300.com/sample).



**NEWSLETTER OF THE CANBERRA  
MATHEMATICAL ASSOCIATION  
INC**

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Weston ACT 2611  
Australia

E-mail: [canberramaths@gmail.com](mailto:canberramaths@gmail.com)

We're on the Web!

<http://www.canberramaths.org.au/>

## THE 2018 CMA COMMITTEE

President	Jo McKenzie
Vice Presidents	Bruce Ferrington Sue Wilson
Secretary	Valerie Barker
Treasurer	Paul Turner
Councillors	Peter McIntyre Heather Wardrop Andrew Wardrop Maggie Quigley Theresa Shellshear Vivienne Sheridan Aruna Williams Rajesh Prasad Yvonne McGarry Jane Crawford

## ABOUT THE CMA

The Canberra Mathematical Association (Inc.) is the representative body of professional educators of mathematics in Canberra, Australia.

It was established by, among others, the late Professor Bernhard Neumann in 1963. It continues to run - as it began - purely on a volunteer basis.

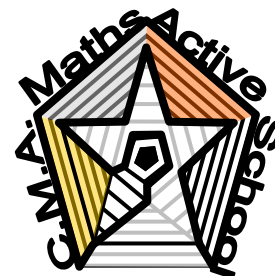
Its aims include

- \* the promotion of mathematical education to government through lobbying,
- \* the development, application and dissemination of mathematical knowledge within Canberra through in-service opportunities, and
- \* facilitating effective cooperation and collaboration between mathematics teachers and their colleagues in Canberra.

ACT Education Directorate  
Radford College  
Australian Catholic University  
Australian Academy of Science

University of NSW Canberra

Kaleen Primary School  
Australian Catholic University  
Canberra Grammar School  
Mount Stromlo High School  
Lyneham High School  
Canberra Girls Grammar School  
Canberra Girls Grammar School



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Short Circuit is edited by Paul Turner.

**ISSN 2207-5755**