



NCMS News

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Big International Meetings in the Mathematical Sciences

I attended my first International Congress of Mathematicians (ICM) in 2010 as President of the Australian Mathematical Society. I just came back from my second one held 13–21 August 2014 in Seoul, Korea. In recent years I have also attended the International Congress of Industrial and Applied Mathematics (ICIAM) in 2011 and the Joint Math Meeting in the USA, twice. The Joint Math Meeting easily trumps the others in numbers, with over 7000 participants! I write this column to let you know about another big meeting, which I hope will be held in Australia, and to encourage your involvement. By the time you read this, we will have submitted a bid to hold the International Congress of Mathematical Education (ICME-14) in 2020.

It was the 2010 ICM that changed my approach to big mathematical meetings. What I never expected at that first ICM, and what led me to attend the second one, is the surprisingly deep, inspirational mathematical conversations I had with mathematicians whom I had never met before. These, along with sudden realisations of mathematical ideas from talks in fields vastly different to my own, changed my previous preference for small specialised meetings. The second ICM also had a uniquely unexpected beginning: the exhilaration of celebrating the first Fields medal awarded to a female mathematician, Maryam Mirzakhani, which still reverberates with a quiet delight in my soul.

Immediately prior to the ICM, I attended the General Assembly of the International Mathematical Union. The over-full slate of items for consideration at the GA was accompanied by what was at times intense, emotional debate. The debate and the long days had the curious benefit of creating a camaraderie that lasted well through the ICM. I came to see the combined events: the GA, the International Congress of Women Mathematicians (held in interspersing days) and the ICM as a continuous expression of the spirit and creativity of mathematics around the world.

At the 17th General Assembly in Gyeongju, Korea, Australia had a group of four delegates for the first time, corresponding to our newly elevated status as Group IV member of the IMU. My fellow delegates were Julie Clutterbuck (Monash), Michael Coons (Newcastle) and Brendan McKay (ANU). Julie and Michael were selected by AMSI and AustMS as early- to mid-career mathematicians whose travel was supported to encourage them to consider organising a future ICM in Australia.

Delegates and representatives of National Committees are often the ones invited to official receptions during the ICM. Collectively, we attended receptions held

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by Brazil, Canada, France, Japan, Norway, UK, and USA. At one of these, I was asked why Australia didn't have a reception. It seemed mean-spirited to respond with the truth: that we do not have any funds to pay for receptions. But I realised that this was also a matter of choice. A reception would be like holding a dinner and inviting friends to our home: it is a generous way to celebrate being part of the global mathematics enterprise and a way to make Australia's contributions more visible.

Holding a big meeting in Australia is another way of making a generous, visible contribution to the world stage. To my knowledge, we have had three big mathematical meetings in Australia: ICME-5 held 1984 in Adelaide, ICMP 1997 in Brisbane and ICIAM 2003 in Sydney. I am told that ICME-5 generated a tremendous boost to mathematics education in Australia. Since then, Australia has been in the top three or four countries in the world in terms of the number of ICME delegates. Many Australians have held leadership positions in international mathematics education organisations. Currently, Cheryl Praeger is a Vice-President of the International Congress of Mathematical Instruction (ICMI). Holding ICME-14 in Australia would also be an advantage for mathematical educators in the Asia Pacific region.

The Australian Academy of Science is the adhering body for ICMI and so the National Committee for Mathematical Sciences is acting as the point of contact for the bid for ICME-14. The expression of interest was prepared by AAMT (Australian Association of Mathematics Teachers) and MERGA (Mathematics Education Research Group of Australasia) and submitted late in 2013. It was a hurried time, late in the year and the information about the bid being submitted may have slipped people's minds. The bid is now being prepared with the help of Business Events NSW, which is a not-for-profit venture between the NSW Government, Destination New South Wales and other organisations. The full bid documents are due on 1 November 2014.

The next step in the deliberations will occur with a site visit, when three ICMI representatives will visit the proposed site (President, a Vice-President and the Secretary General) along with the Director of the ICMI office at the IMU headquarters in Berlin. The site visit is likely to occur in the first quarter of 2015.

Would you like to be involved? Please drop me a line.



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