

New Zealand Mathematical Society President's Report, 2018

2018 was another busy year for the NZMS, with the Council and individual members being involved in a wide range of activities, and with some spectacular successes for individuals in our community.

Membership: The current membership is 265, up from last year's 260. We have 64 student members. Please encourage new colleagues and students to join our Society. The first year of membership is free.

Lecture Tours: The 2018 Forder Lecturer was Valerie Isham from University College London. Her public lectures and more specialized presentations on stochastic modelling, particularly the modelling of epidemics, were very well received, and members around NZ were appreciative of the opportunity to engage with Valerie. I am grateful to Mick Roberts for coordinating Valerie's tour.

Bakh Khoussainov of the University of Auckland will be the 2019 Aitken Lecturer and will visit the UK in June and July 2019. In addition to giving lectures at various universities around the UK, Bakh will deliver the Aitken Lecture at the General Meeting of the London Mathematical Society in June. The London Mathematical Society has reported that the Aitken Lectureships to date have been very well received in the UK and has indicated that it wishes to continue with both the Forder and Aitken Lectureships in the future.

NZMS Colloquia: This year's New Zealand Mathematics Colloquium is hosted by the University of Otago. I thank the organisers, especially the conveners, Florian Beyer and Boris Baeumer, for all their work. The 2019 Colloquium will be hosted by Massey University in Palmerston North. The venues for the 2020-2022 Colloquia are not yet settled, but the 2023 Colloquium will be held in Auckland as part of a joint meeting with the American Mathematical Society and the Australian Mathematical Society.

Student Travel Grants and Other Funding, December 2017 to September 2018: The NZMS awarded student travel grants to Mohamed Al-Sultani, Fareeda Begum, Hahmed Amirinezhad, Emma Greenbank, Saima Gul, Peter Huxford, Ireesha Ratnayake, Steven Turnbull, Demi Vasques and Faheem Zaidi. We expect to make several more awards in December 2018.

The NZMS supported several conferences this year: MINZ 2018, NZMASP 2018, and the Mirzakhani Hui: Women in Mathematical Sciences Conference (Lower North Island). We put aside funding to support student participation in the 2018 Character Varieties and Topological Quantum Field Theory conference and the 2019 Fluids in NZ conference. We also supported the national Maths Craft Festival.

Nominating Committee: 2018 was the first year of operation of the Nominating Committee, which is tasked with identifying candidates for positions, awards and fellowships associated with the NZMS (e.g., NZMS prizes and awards, Fellowship of the NZMS and RSNZ, positions on Council, lectureships, etc). The Nominating Committee does not nominate anyone, but suggests to others that a person might be nominated or encouraged to apply. Individuals are also free to nominate themselves or someone else, independently of the activities of the

Nominating Committee. The Nominating Committee has been very active this year, helping ensure a broad pool of nominations for all the appropriate positions and awards. I would like to thank the committee for their sustained work throughout 2018.

NZMS Research Awards, Prizes and Fellowships: I thank the members of the judging panels for their work in judging the applications and nominations we received for the 2018 Awards and Prizes. I also thank the members of the Accreditation Committee for their work in assessing applications and nominations for Fellowship of the NZMS. This year's prize winners and new Fellows will be announced at the conference dinner at the Colloquium.

Other Prizes: Mathematicians did spectacularly well in the 2018 Royal Society Te Apārangi 2018 Research Honours. Marston Conder was awarded the Jones Medal for his lifetime achievement and leadership in mathematics. Rod Downey was awarded the Rutherford Medal for his revolutionary research into mathematical logic and computer science. Matt Visser was awarded the Hector Medal for his research into both classical and quantum gravity. Jurij Volčič, now at Texas A&M University, received the Hatherton Award for his paper *Matrix coefficient realization theory of noncommutative rational functions* published in the Journal of Algebra in 2018. Congratulations to all four!

Diversity in the NZ Mathematics Community: The Council has this year been investigating ways in which it can support diversity in our Society and the wider mathematics community. The focus has mostly been on gender diversity. In the last 12 months, the Council has developed a statement on Women in Mathematics, participated in the Australian Mathematical Society working party on gender equity, collected data on the participation rates of women in Mathematics and Statistics in NZ universities, and continued to promote the participation of women in mathematics through its own practice when making funding and policy decisions. Work for the near future will be to develop activities to promote other types of diversity in mathematics.

Education Group: The Education Group within the NZMS has had a focus this year on secondary school mathematics and first year tertiary mathematics. Amongst other activities, the Education Group made a submission on behalf of the NZMS, in response to the Ministry of Education's consultation on NCEA, and has also held meetings with members of the Ministry of Education and the NZ Qualifications Authority. More information about the work of the Education Group and opportunities to contribute can be found on the Education Group page of the NZMS website.

Acknowledgements: Many people contribute to the running of the NZMS, and I am grateful to them all. I thank Boris Baeumer for his service as webmaster, John Shanks for his service as Membership Secretary and work on the website, and Shaun Cooper for his service as Editor of the NZ Journal of Mathematics.

Miguel Moyers-Gonzalez and Phil Wilson have served as editors of the Newsletter for three years, and will step down at the end of 2018. The Newsletter provides an important link between members in different parts of the country, and Phil and Miguel have done an excellent job of sustaining these connections through their choice of material. I thank Phil and Miguel for all their efforts. Fabien Montiel will take over as Newsletter editor in 2019.

I am grateful to all the members of the Council for their ongoing service to the NZMS. Rua Murray (Secretary) and Stephen Marsland (Treasurer) have put in particularly long hours to enable smooth operation of the NZMS. Mark Mcguinness has completed six consecutive years on the Council and steps down this year. I am grateful to Mark for the patience, common sense and good humour he has brought to this role. Astrid an Huef also leaves the Council this year after seven years of service, including the last four as President and Vice-President. Astrid has provided outstanding leadership during her time on Council, contributing wisdom and a great deal of time and energy to ensuring that the Society aspires to the highest standards in its engagement with its members and the wider community. I thank Astrid for all her efforts over the years.

Vivien Kirk
November 2018