

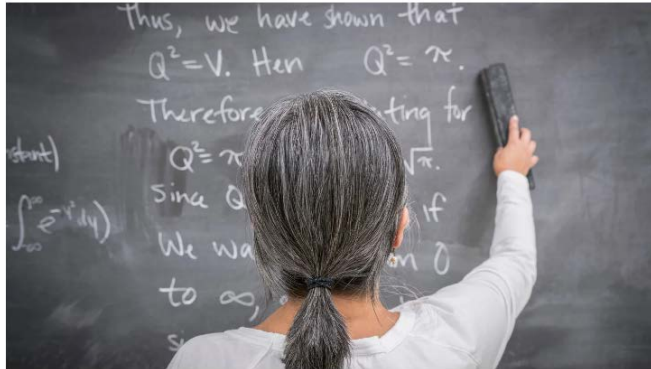
88 Year Old Statistics Pioneer Says Some Barriers For Women In STEM 'Haven't Changed Since The 60's'



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Gender equity is among the topics tackled at the Australian Mathematical Sciences Institute (AMSI) Optimise 2018 conference, which opens today.

At the conference on Wednesday, three generations of women in STEM are coming together to discuss how far the industry has come - and far it has to go, considering men make up 84 per cent of Australia's Science, Technology, Engineering and Mathematics workforce and 91 per cent of mathematics professors. Among them is statistics pioneer Alison Harcourt.

Assistant Professor Marie-Ève Rancourt from HEC Montréal, Associate Professor Maria Antónia Carravilla from Universidade do Porto and Optimisation and statistics pioneer, Alison Harcourt will join moderator Professor Kate Smith-Miles from University of Melbourne's for the discussion.

Still working at the University of Melbourne at 88 years old, Harcourt says while she has seen some positive changes over her six decades in academia, there is still a long way to go.

"While comparatively better than it once was, Maths is still very male dominated, particularly through the top levels," she says.

Slow progress is being made, she says, but some of barriers haven't changed since the 1960s.

Harcourt based her Master's thesis on the new problem of Integer Programming. Further work in London with Professor Alisa Land was reported in the landmark 1960s optimisation paper An Automatic Method of Solving Discrete Programming Problems. On her return to Australia she did not take on a PhD, partly due to isolation and time out for family. She later returned to statistics.

"With no Master's supervisor I did it all myself and as a result decided not to do a PhD. Time out for family made it difficult to find my way back into the field, so I moved towards statistics," she said.

Harcourt was also part of the team behind the Henderson Poverty Line and played a key role in the amendment of the Commonwealth Electoral Act to introduce the Double Randomisation method still used today.

Having seen industry reluctance to embrace research, she applauds programs such as AMSI's APRI, which is expanding opportunities for women and academic engagement with industry.

"This creates great opportunities for women and engagement with industry. Despite its applications, when I was working in Optimisation the research was viewed as a threat rather than an opportunity for input and collaboration," she said.

Hosted by the University of Melbourne, AMSI Optimise will run in Melbourne from 18 - 22 June.

Jointly sponsored by AMSI, APRI, the Department of Education and Training, the University of Melbourne, ACEMS and Biarri, AMSI Optimise is part of the Institute's Securing Australia's Mathematical Workforce project.