PROFILE

Astrid an Huef

Astrid an Huef was born in Karlsruhe, Germany. When she turned 13, her family moved to New Zealand, and she spent two years as a student at Wellington High School. The biggest culture shocks were the requirement to wear a school uniform and the notion of single-sex schools. Fortunately Wellington High was co-ed, though the uniform was the antithesis of a fashion statement. She and her family enjoyed their two years in Wellington, and Astrid was delighted at the opportunity to return to New Zealand when she took up the Chair of Pure Mathematics at the University of Otago in December 2009.

In January 1985, Astrids family moved to Australia. By then she spoke English with a New Zealand accent, which resulted in some teasing and questions about "the underarm incident" (Astrid was mystified). They lived in Toronto, NSW (not to be confused with the small town on the shores of Lake Ontario) where she finished high school. The international moves caused some significant gaps in Astrids education. In particular, a mathematics teacher at Toronto High School advised her against taking the higher mathematics class. Astrid recalls that at the time she was incensed, and she did not even think about taking his advice. Instead, she successfully worked at filling her gaps with the help of her older sister.

After finishing high school, Astrid went to the University of Newcastle, majoring in Computer Science. She enjoyed the mathematics courses more than the computer science ones, and in her third year she switched to a combined degree with Mathematics. She then went on to do an Honours degree in Mathematics.

At the time, Newcastle had a lively research group working in operator algebra. Having had courses on Functional Analysis and Measure Theory in third year, Astrid was well-prepared to work with the group. Her Honours thesis contained several innovations and earned Astrid a University Medal. (In hindsight, her innovations have proved to be of lasting significance.) The operator-algebra group had many international collaborators, and encouraged them to spend time in Newcastle. It also made sure that Honours and PhD students got the chance to interact with these visitors. Thus Astrid met Dana Williams of Dartmouth College, who soon after became her PhD supervisor.

In 1994 Astrid moved to Hanover, New Hampshire (not to be confused with the small village on the River Leine) to start her PhD studies at Dartmouth College. Dartmouth College is primarily a small Liberal-Arts university which belongs to the Ivy League, and has a small but strong graduate program in mathematics. Hanover is a small picturesque college town several hours north-west of Boston. This was light years from Newcastle (and indeed Wellington)!

Of her time as a PhD student, Astrid is particularly appreciative of the support system provided by her fellow students and the faculty. As part of her graduate fellowship at Dartmouth, Astrid participated in a two-month long teaching seminar in the summer of her second year, after which she taught one undergraduate course per year. On the research side, Astrid obtained significant results in the representation theory of operator algebras associated to dynamical systems. She graduated in 1999.

Helped by her teaching experience at Dartmouth College, Astrid straightaway obtained a tenure-track position at the University of Denver. The University of Denver is again a small Liberal-Arts university, but this time in the beautiful Rocky Mountains region. She very much enjoyed the students and working with her colleagues there.

There was a desire to go home, and Astrid applied for a job at the University of New South Wales (UNSW) in Sydney. The day that UNSW offered her a job, she also got an email from the National Science Foundation congratulating her for her successful grant application. Unfortunately she couldn't take the grant to UNSW, where she spent the next eight years of her career.

UNSW is a large metropolitan university of 30,000 students specializing in engineering. The School of Mathematics and Statistics has a major role teaching the engineering students, and Astrid learned first-hand how much effort it takes to coordinate lecturers and tutors teaching thousands of students. UNSW also placed an emphasis on research that Astrid had not seen before. She was expected to organize research programs, find collaborators and students to help implement them, and apply for grants to make this all happen. In retrospect, she found this surprisingly easy: she found that, in following her own instincts, she had already built up a substantial support network. So her research programs flourished.

In 2008 the University of Otago advertised a Chair of Pure Mathematics. Astrid saw this as an opportunity she was ready for, and, the more she thought about it, the more she fancied returning to NZ. So she applied. It turns out she was on holidays in Wanaka when e-mailed to arrange and interview, and almost lost out because she was not checking e-mail. Anyway, she got the job.

Astrid realised that if she wanted to have an influence in NZ, she had to demonstrate that she wanted to help make things happen. She has enthusiastically engaged with the NZ mathematical community (she is currently President of the NZ Mathematical Society), and has become heavily involved in University affairs (for example, she has served on many promotion committees and sits on Senate). But she has continued to develop her research network, and her research is flourishing.

Astrid looks forward to many years doing what she likes to do, with people she likes, in a place she likes very much.

Miguel Moyers