



Dr Anna Watts

School of Mathematics

- **Assistant Professor,
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Beyond star gazing. Anna's career in astrophysics

Winning a place on a space science summer school was a life-changing experience for astrophysicist Anna Watts. "Although I always liked solving problems, my interest in Physics only really started with my A levels," she admits. "But this two week course at Brunel University convinced me that I wanted to make science my career."

Anna was advised to get a good degree in Physics first, then specialise in astrophysics. She went to Merton College, Oxford and enjoyed her time there: "It was a small, friendly college and I had fantastic tutors. I come from the north of England and wondered what Oxford would be like but I loved it."

After graduation, not sure an academic career was for her, Anna decided to get a job and signed up for the Ministry of Defence civil service fast track science stream: "I stayed there for five years and learned a lot. We worked in a wide range of areas and they moved us around to several sites. But eventually, I realised I missed the science too much to stay." During her work with the MoD, Anna met her future husband, fellow scientist Jason Farquhar. Both decided to resign at the same time and study for PhDs, coincidentally both at Southampton.

"This was a big decision and I knew I had to go to the right place and find the right supervisor. I asked my former tutors at Oxford for advice and they reckoned I'd enjoy working with Professor Nils Andersson at Southampton." Anna's doctorate involved investigating neutron stars, some of the most compact objects in the universe, and the gravitational and electromagnetic radiation they emit. "This was very

much theoretical modelling using complex mathematics and I found it absorbing; in fact, I still work in this field. I was exploring phenomena that had never been studied before and I was really pleased at how it went.” Throughout her PhD study, Anna kept up with developments in astronomy by going to lectures and seminars at Southampton and made useful contacts in several areas.

Five years of post-doctoral research took her first to Washington DC for a contract with the US space agency NASA, where she learned more about observational astronomy, then to the Max Planck Institute for Astrophysics just outside Munich. A third postdoc position at the University of Amsterdam led to a job there: “It was interesting to work in specialist research laboratories but I realised I preferred to be in a university environment.” She is now Assistant Professor at the University’s Anton Pannekoek Astronomical Institute and teaches fluid dynamics as well as supervising students and carrying out her own research.

Husband Jason, who completed his PhD in computer science at Southampton while Anna was in the USA, now also works in the Netherlands, but at the University of Nijmegen. “We leave the house in the morning to take the train but travel to different cities. But at least we’re in the same country,” she says.

Written by:

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