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What is inside stars?

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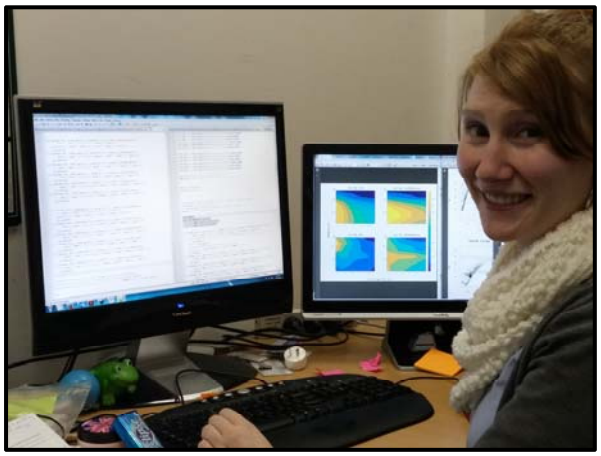

My love of science fiction at an early age is what first interested me in the universe and the study of stars. Throughout my schooling, I found myself gravitating towards science and maths subjects. Maths is literally the language of the universe and science is the method of studying of everything in it.

I was so fascinated by science that I chose to pursue it at University, however I wasn't sure exactly what area to focus on. Eventually decided to concentrate on maths and physics, and research into astrophysics.

Astrophysics is the study of how stars are formed, how they evolve and affect their surroundings, and how they eventually die, providing the materials for the new generation of stars.

I am currently researching how a star of similar mass to our sun, but much older, creates elements in its core. Because we cannot see inside of a stars (where the elements are created), we need to make observations with telescopes, and model the behaviour with computer simulations. This is where maths becomes really important. We use mathematical equations to describe what we see and to predict the things that we cannot see. This is what I love about physics, the ability to describe the amazing nature of the universe around us.

I cannot imagine a time when I will stop wanting to learn about how things work. It is such a great feeling figuring out how and why something does what it does, and I never want to lose that!

For further information: www.utas.edu.au/physics