

Women in Astronomy

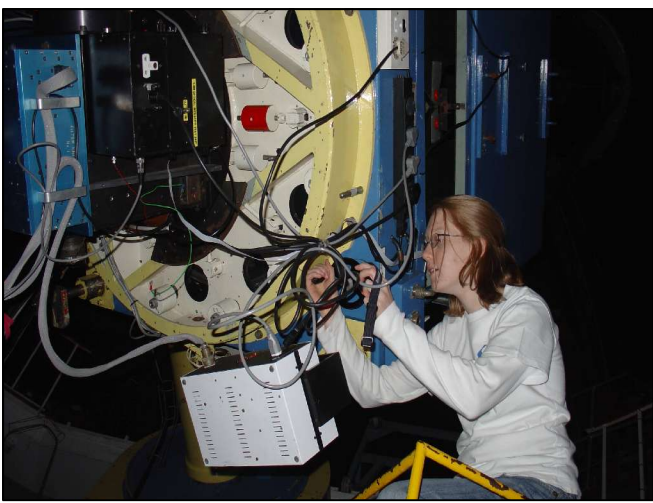


Hannah Worters
Ph.D. Student – UCLAN

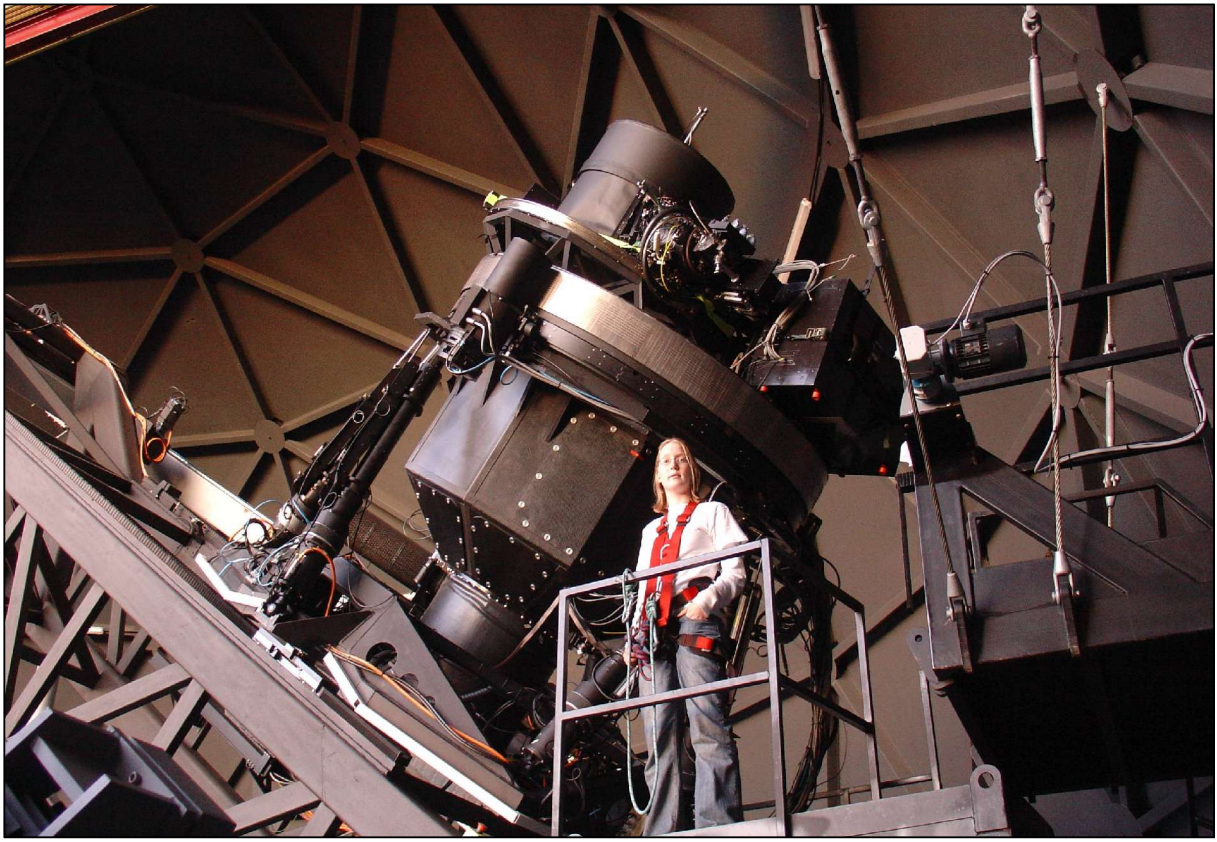
"I got my first taste of observational astronomy as an undergraduate, spending a year as a student support astronomer on La Palma, in the Canary Islands. The first night at the telescope under the Milky Way was enough to get me hooked! I soon learned that astronomers get to work in the most amazing locations in the quest for clear skies; I've since observed using telescopes in Chile, South Africa and Hawaii".



"One of the most exciting experiences in astronomy has been working as part of the Operations Team commissioning the 10-metre class Southern African Large Telescope (SALT). The size and complexity of this pioneering telescope is simply awe-inspiring, particularly when working in a harness and a headtorch, with the stars above and the mirror thirty metres below".



"Right now I'm using a 1-metre telescope at the Southern African Astronomical Observatory to measure the rotational periods of post-T-Tauri stars. These are highly active, young stars, of similar age to that of the Sun when the solar system formed. It's incredible to think that we can be sitting atop a mountain on Earth, catching photons from across the galaxy and using them to investigate the workings of the universe."



Prof. Raffaella Morganti
Staff Astronomer – ASTRON

Raffaella grew up in Bologna, Italy where she studied for her Ph.D. in Astronomy. She built up her career by working first at institutes in Munich, Sydney and at the European Southern Observatory where she took many trips to the Chilean Andes to use some of the largest optical telescopes in the world. She has also been staff astronomer at the Institute for Radio Astronomy in Bologna, Italy. She moved to ASTRON seven years ago.



"From the beginning, my main scientific interest has been on the study of objects called *active galactic nuclei*. These are fascinating galaxies where huge amounts of energy are produced by Black Holes located in their centre. Some of these "radio galaxies" are huge. They are so large that light (travelling at 300000 km/s!) needs more than a million years to travel from one end to the other. They are the largest single objects that exist in the Universe. Understanding how this activity starts and how it all works is a fascinating puzzle."



"I quite enjoy living in the Netherlands, but every now and then I need to run away from the rainy Dutch weather and have to travel to some warm place. Another disadvantage of working here is that, compared to other countries, very few women work in astronomy. I am the only staff woman in the group I work in!"

"I have extensively used the telescope in Westerbork, the WSRT. Although the telescope is in itself quite old, some of its key components have been recently upgraded. Using the WSRT, I have discovered something very interesting in active galactic nuclei. One would expect that the gas that is expelled at high velocities by the energy generated by the Black Hole would be very hot. But I have found that some of that gas is very cold! This was a big surprise; it is a bit like finding ice cubes on the surface of the sun... I am now working hard trying to understanding how this can happen.



"One of the nice things with being an astronomer is that you travel a lot, and I have enjoyed that very much! Telescopes are usually in very remote places, like high in the mountains, or deep in the desert. So you come to see the most beautiful places in the world."

Prof. Ewine van Dishoek

Professor of Molecular Astrophysics- University of Leiden
Director of the Sackler Laboratory for Astrophysics



Ewine graduated with a Ph.D. from the University of Leiden in 1984 and began work as a Junior Fellow at Harvard University. She quickly became a visiting professor at Princeton, where her research moved from quantum chemistry to astrophysics. In 1988 she became Assistant Professor of Cosmochemistry at the California Institute of Technology.



Ewine with her husband, Tim de Zeeuw at the APEX telescope in the Atacama desert in Chile.



"In 1990 I returned to The Netherlands and Leiden Observatory, where I steered my research towards the astrochemical evolution from interstellar clouds to protoplanetary discs and the role of molecules as diagnostics of the processes of star and planetary formation. My group uses observations at submillimetre and infrared wavelengths with both ground-based telescopes and those observing from space. I am also director of the Sackler laboratory for astrophysics in Leiden where the chemical processes in interstellar ice mantles are simulated.

A woman's place
is in the Dome....

