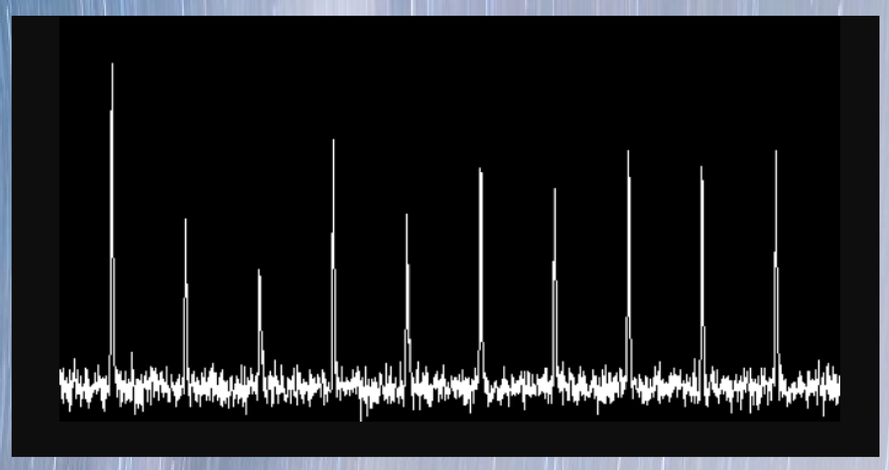
Molonglo Radio Telescope: listening in on the stars

The University of Sydney's Molonglo telescope has been observing stars and galaxies for over 50 years in a valley near Bungendore in southern NSW.

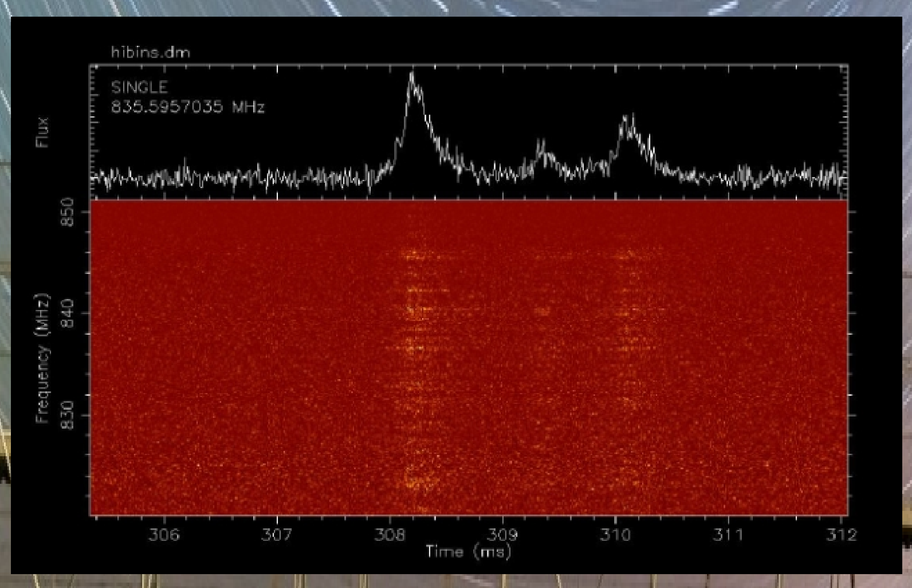
The 1.6 km long telescope is the largest in the Southern hemisphere. Its unique cross-shaped design is being used to pin-point the sources of radio waves coming from the Cosmos.

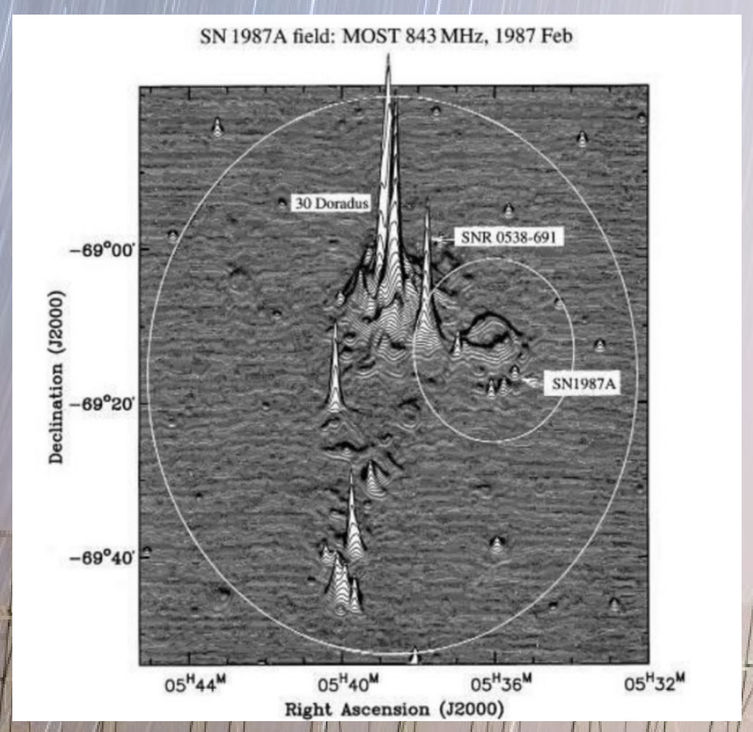
Molonglo has discovered hundreds of pulsars in our Milky Way – super dense stars which spin with clockwork regularity. These pulsating stars can be used to test Einstein's theory of relativity with extraordinary precision.



Molonglo has seen radio waves from supernovae – exploding stars in other galaxies than the Milky Way. The radio waves in the image below took over 150,000 years to reach Earth.

Molonglo is leading the world in discovering Fast Radio Bursts, which are extremely bright radio flashes coming to us from halfway across the Universe. We still don't know what causes them!





Molonglo staff are working with local engineering, education and community groups to refit the telescope for the next generation of astronomical discoveries.

SWINBURNE UNIVERSITY OF TECHNOLOGY

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