

MEDIA RELEASE

NEWS FROM THE UNIVERSITY OF TASMANIA

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ATTENTION: Chiefs of Staff, News Directors



Student's blazar of glory

A UTAS undergraduate student has made an important scientific discovery.

Ross Turner, 23, was undertaking a summer research scholarship in the UTAS School of Maths and Physics.

Ross' project involved analysing data from the UTAS Ceduna 30m radio telescope and from the Very Large Array in New Mexico (the world's premier radio interferometer).

The observations were of an object called PKS 1144-379, a distant, powerful blazar (a type of quasar).

The radio waves which Ross observed were emitted by the blazar nearly eight billion years ago.

Ross used the bending of these radio waves by clouds of electrons within the Milky Way to form a virtual telescope and study the black-hole in the centre of PKS1144-379 at very high resolution.

By observing the naturally occurring bending of the light, he was able to make observations of the region near the black hole in much greater detail than is possible using an Earth-based telescope.

The results of his research have been published in *The Astrophysical Journal Letters*, the premier rapid publication journal in the field.

Ross was supervised by Physics' Dr Stas Shabala and Dr Simon Ellingsen.

"This is an impressive result to achieve while still an undergraduate," said Dr Ellingsen.

"We look forward to seeing what Ross might achieve in the future."

For a copy of the paper, please email chcooper@utas.edu.au

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