

Shane O'Sullivan Seminar

Room. SA106.

Date. 27th February 2020.

Day. Thursday.

Time 1pm.

Title: Constraining intergalactic magnetic fields with LOFAR

Abstract: Uncovering the origin of cosmic magnetic fields is a major goal in astrophysics. Studies of cosmic magnetic fields enable us to better understand the influence of magnetic fields on a range of different astrophysical scales (in galaxies, galaxy clusters, and the cosmic web), in addition to providing information on the physics of the early Universe and the nature of dark matter. I will present data from the LOFAR Two Metre Sky Survey that probes nanoGauss (sub-picoTesla) strengths of intergalactic magnetic fields using the effect of Faraday rotation.

Biography:

Dr Shane O'Sullivan studied at University College Cork (BSc in 2006, PhD in 2010: entitled "Magnetic field properties of active galactic nuclei jets", under the supervision of Dr Denise Gabuzda). He has worked at CSIRO Astronomy and Space Science (2010 - 2012), the University of Sydney (2012 - 2015), the Institute of Astronomy, UNAM (2015 - 2017), the University of Hamburg (2017 - 2019) and now DCU. His research is focused mainly on the investigation of astrophysical magnetic fields and relativistic jets from supermassive black holes.