Fast Radio Burst Updates from the Apertif Telescope

Monday, 10 February 2020 • 3:30 pm

MSI Conference Room • 3550 University

The field of fast radio bursts is evolving rapidly, with many new sources being discovered each year, and many new telescopes initiating search efforts. The origins of FRBs remain a mystery, and new search efforts continue to provide valuable insights. In this talk I will provide an introduction to the FRB search currently operating on the Westerbork Synthesis Radio Telescope’s new Aperture Tile in Focus (Apertif) instrument. The Apertif system uses phased array feeds to maximise the field of view and sensitivity of the telescope array both for radio imaging and FRB search at 1.4 GHz. I will present some early results from this system. I will also briefly discuss some recent work on FRB polarisation and how pulse polarisation can be used to probe extreme environments in FRB host galaxies.