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Looking for low-frequency counterparts of bright Fast Radio Bursts with the MWA

Fast Radio Bursts (FRBs) are a relatively new class of radio transients. The first FRB, dubbed “Lorimer burst” was discovered in 2007 in the archive data collected in 2001. Presently there are about 66 published FRBs and probably over a hundred including the unpublished ones. So far, FRBs have been observed by several instruments at frequencies ranging from 400 MHz (CHIME) up to 8 GHz (Green Bank Telescope). However, they have never been observed simultaneously by multiple telescopes nor below 400 MHz. I will present results of the observing campaign using the Murchison Widefield Array (MWA) to shadow the Australian Square Kilometre Array Pathfinder (ASKAP) looking for FRBs at 1.4 GHz. We observed field of view of seven bright ASKAP FRBs and did not detect low-frequency (170 - 200 MHz) counterparts of these FRBs, which enabled us to constrain some parameters of FRB emission and propagation mechanisms.

Serdecznie zapraszam,
Agnieszka Majczyna