

PHAROS Conference 2020: The multi-messenger physics and astrophysics of neutron stars



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Multi-frequency observations of single pulse properties of two bright pulsars.

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We present the results of multi frequency single pulse observations of PSR B0329+54 and PSR B1133+16. The observations were conducted over a very wide range of frequencies, from 100 MHz to 8 GHz, using instruments such as LOFAR single stations, GMRT and Effelsberg. Large parts of these observations were conducted simultaneously at three or more frequencies. Our main goals were to study the single pulse behaviour and its frequency-dependent aspects to investigate the radiation beam structure of neutron stars. The effects we observed include subpulse drifting, nulling, mode changing and subpulse structure frequency variations.

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