

VLA Searches for Fast Radio Transients at 1 TB hour⁻¹

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1 Fast Radio Transients

Fast radio transients are pulses of dispersed radio emission lasting less than 1 second. Slower radio transients originate predominantly in synchrotron emission, while faster transients are caused by coherent processes. Furthermore, at timescales faster than 1 second, propagation through the Galactic plasma induces dispersion, the frequency-dependent arrival time quantified by dispersion measure (DM), that begins to be detectable at MHz through GHz radio frequencies.