

Title: The MeerKAT Key Science Project on Pulsar Timing (MeerTime)

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Abstract:

I will describe progress on the MeerKAT key science project on pulsar timing (MeerTime). MeerTime uses the newly-commissioned 64-dish MeerKAT telescope operated by SARAO in the Karoo in northern South Africa to time 100s of pulsars. In late April 2019 the project has completed 8 runs, and is receiving excellent data on a wide range of pulsars. Early highlights include a new record jitter limit on the millisecond pulsar PSR J2241-5236, high S/N observations of the double pulsar eclipses, giant pulses from PSR B0540-69, excellent prospects for globular cluster and timing array precision increases, and 1-octave studies of scattering from distant pulsars in the galactic plane. The MeerTime project involves scientists from many continents and 16 institutions.