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Talk o e-poster: Probing Fine Time Scale Variations in the Quiet Sun Brightness Temperatures at Metrewaves.

Low frequency radio waves are unique and direct probes of coronal plasma. We present an imaging study of the sun during one of the quietest periods observed by the Murchison Widefield Array (MWA), with practically no active regions visible on the solar disc. The MWA, an SKA precursor located in Western Australia, is an excellent instrument for solar imaging at metre wavelengths (80-300 MHz). The MWA can provide a spectral and time resolution of 40 kHz and 0.5 s, respectively. At these frequencies, even for the quiet Sun, the frequency of observation can be related the coronal height from where this radio emission arises. In this way, three dimensional imaging information can be gathered and analysed. We present initial results from the first exploration of time evolution of quiet time solar emission over the timescales of order a second and spectral resolution of few MHz. We produce the brightness temperature (Tb) maps of Sun for frequencies in the 100-300 MHz band, allowing us to probe a range of coronal heights. At the higher frequencies, the location of high Tb regions can be related to the dense coronal loops regions and this effect becomes less clear at the lower frequencies. We present the first evidence for low level variations in the observed solar Tb at time scales of tens of seconds. These low level Tb fluctuations vary in strength across the range of frequencies studied. We also compare our Tb maps with the structures seen high temperature plasma EUV lines.