Science with MAVIS 2021



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The environments of Fast Radio Bursts

Fast Radio Bursts (FRBs) are millisecond-timescale events of cosmological origin, with next to no multiwavelength counterparts identified. The Commensal Real-time ASKAP Fast Transients (CRAFT) survey has pioneered the localisation of non-repeating FRBs to ~0.1" astrometric precision. The best optical follow-up imaging of their host galaxies is typically no better than 0.5", hindering our ability to distinguish purported magnetar progenitors to FRBs from the background stellar population. MAVIS will enable us to study the environments and potential origins of FRBs at optical wavelengths with a spatial resolution well-matched to the radio.

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