

Transients in Middle Earth



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The CRAFT survey of Fast Radio Bursts and their Host Galaxies

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Fast radio bursts (FRBs) are energetic pulses of radio emission typically lasting a few milliseconds, which encode in their telltale parabolic sweeps in time and frequency a fossil record of their passage through ionised gas between and within galaxies. The Commensal Real-time ASKAP Fast Transients (CRAFT) survey was the first to localise a non-repeating FRB to sub-arcsecond precision, and has now pinpointed more than 50 FRBs not just to, but within their host galaxies. Deep imaging with FORS2 and spectroscopy with X-shooter on the VLT of these host galaxies has given us insight into the likely progenitors of FRBs, and demonstrated their potential as cosmological probes. I will present the results of our ESO Large Programme “FURBY”, and preview the exciting future for FRB research in the era of the SKA and ELT.

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