

# Radio Adventures in the Time Domain

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## Abstract

The Transient Universe is one of the key science themes of the newly expanded Karl G. Jansky Very Large Array (VLA). In the study of transients, the VLA is both a powerful survey instrument and it is the preeminent follow-up telescope at meter to centimeter wavelengths. It offers a wide variety of capabilities including superb instantaneous sensitivity, wide frequency coverage, dynamic scheduling, quick response to external triggers, and fast temporal sampling. Pipeline processing has recently been implemented, with the goal at making the VLA data products more accessible to the multi-wavelength community. I will describe these time-domain capabilities, with examples drawn from fields as varied as solar physics, flare stars, supernovae, gamma-ray bursts and EM counterpart searches for gravitational waves.