# TDIG Summary

- TDIG/RadioIG session: highlighted the current challenges in cutting edge radio astronomy surveys and their demanding time domain aspects.

- Modern facilities have unprecedented sensitivity and survey speed: time series radio observations now routine.

- Survey focus: from a few fields or objects of interest (ThunderKAT, **P. Woudt**) to all sky (VAST, **D. Dobie**).

- Obscore adaptations are well advanced (**V. Galluzzi**). Additional adaptations may be required (ongoing work with RadioIG).

- MOC maps successfully used by NenuFAR to manage time and frequency dependent contamination in observations (**A. Loh**).

Looking Forward

- Multiple facilities are generating massive amounts of time series data (Meerkat, ASKAP, ZTF, Vera Rubin Observatory, etc.).

- Survey work has leapfrogged from era of single magnitudes in a few filters to one of multiple filter time series. Challenge ahead: Cross match multi-wavelength data, optionally rebinning in time and spatial resolution.

- Archives will need more sophisticated variability metrics to allow variables to be extracted (e.g. Cross et al. 2009). Do we introduce most common into obscore?

- Data analysis will be more challenging. What datalink services will we need? Visualisation of multiple time series and their images. Do we design configurable platforms and APIs to aid cross matching and time series analysis? (e.g. Data Aggregation Service).

- Ongoing work with RadioIG to improve obscore and other data models in this area, especially for more complex formats (datacubes).

Cross et al. 2009
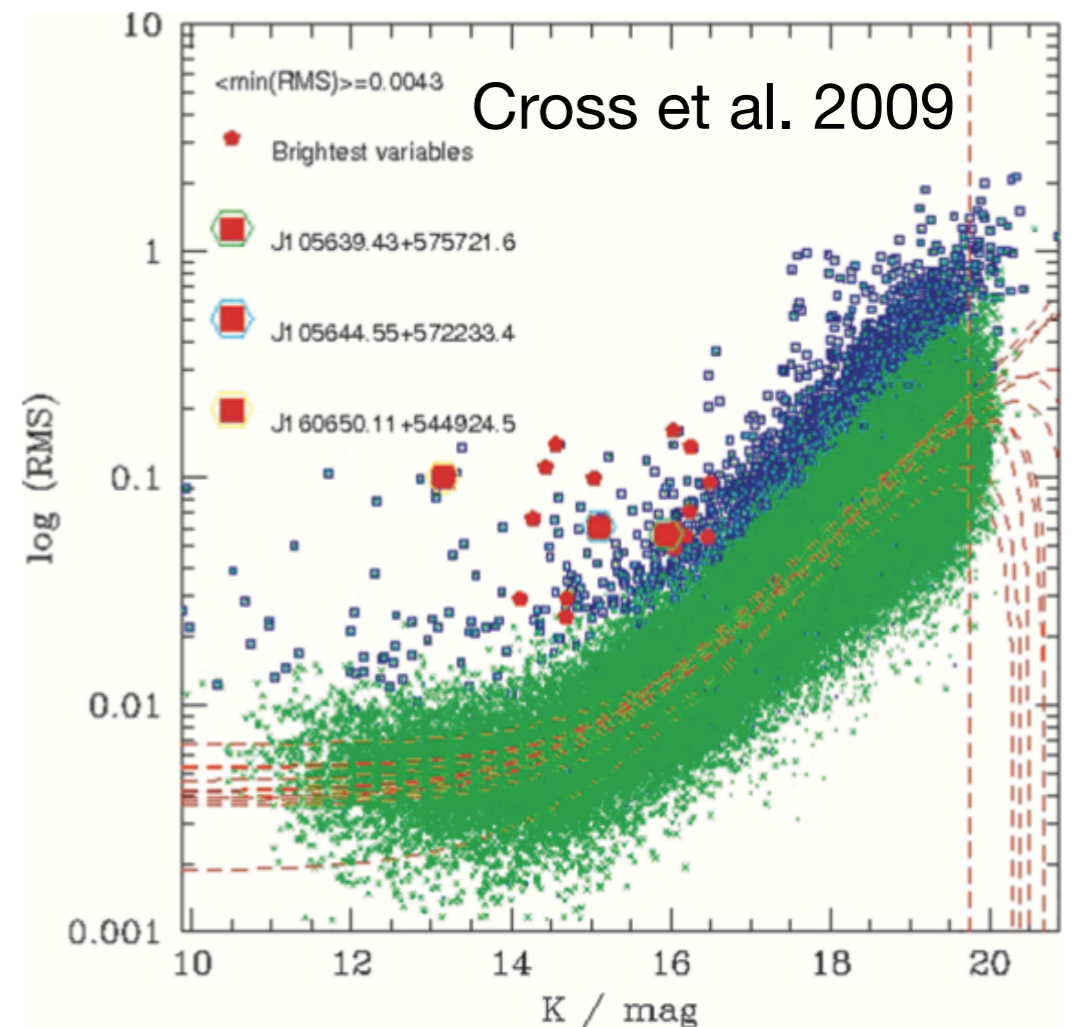
Challenge: How do we best facilitate the identification of variables within enormous time series archives?