Proposal Abstract:

Fast radio bursts (FRBs) are currently one of the biggest unsolved mysteries of modern day astrophysics. They are millisecond duration bursts of unknown origin from as far as halfway across the Universe. While most FRBs are observed as one-off events, some have been observed to repeat over various timescales suggesting a possible unified origin for the population. Both repeating FRBs and one-offs have been found to live in environments going from dense and magneto-ionic, to clean. The host galaxies of repeating FRBs and one-offs present no significant distinction, indicating that they may both be produced via the same formation channel. These shared properties motivate searches for repeat bursts from one-off FRBs to solve the dichotomy between repeating FRBs and apparent non-repeaters. In this proposal we request time to observe 2 FRBs discovered with the MeerKAT radio telescope to ascertain a possible repeating nature.