Contribution ID: **153** Type: **Oral Presentation**

Searching for persistent radio emission towards selected Fast Radio Burst positions

Fast Radio Bursts (FRBs) are millisecond-duration radio emissions originating from cosmological distances, as indicated by their large dispersion measures. While numerous FRBs have now been localised to their host galaxies, a distinct class of compact electromagnetic counterpart, the Persistent Radio Source (PRS), has also been identified in some cases. These PRSs, have so far only been found in association with a small number of actively repeating FRBs. Characterising these PRSs is crucial for providing insight into the progenitors, local environments, and evolution of FRBs. Currently, only four repeating FRBs (FRB 20121102A, FRB 20190520B, FRB 20201124A, and FRB 20240114A) have confirmed associations with a PRS. This work presents several potential candidates for PRSs associated with FRBs using data from the MeerKAT Radio Telescope. A comprehensive multi-wavelength approach is necessary to confirm whether these candidates genuinely qualify as PRSs, with the aim of increasing the currently limited sample of known FRB-PRS associations.

Apply for student award at which level:

MSc

Consent on use of personal information: Abstract Submission

Yes, I ACCEPT

Primary author: Mr LETSELE, Thulo (Centre for Space Research, Potchefstroom Campus, North-West University, Potchefstroom 2520, South Africa)

Co-authors: Prof. VENTER, Christo (Centre for Space Research, Potchefstroom Campus, North-West University, Potchefstroom 2520, South Africa); Dr BEZUIDENHOUT, Mechiel Christiaan (SKA Observatory, 2 Fir Street, Observatory 7925, Cape Town, South Africa)

Presenter: Mr LETSELE, Thulo (Centre for Space Research, Potchefstroom Campus, North-West University, Potchefstroom 2520, South Africa)

Session Classification: Astrophysics & Space Science

Track Classification: Track D1 - Astrophysics