



Contribution ID: 323

Type: **Oral Presentation**

## Satellite contamination on Single Dish HI Intensity Mapping with MeerKAT

*Thursday, 29 July 2021 15:15 (15 minutes)*

Neutral Hydrogen (HI) Intensity Mapping (IM) promises to open a new window for cosmology, probing Large Scales Structures (LSS) in the Universe over a wide range of redshifts. Unfortunately, HI IM is contaminated by several effects, one of these is the emission from artificial satellites. We aim to simulate the Radio Frequency Interference (RFI) emitted from the Global Navigation Satellite System (GNSS) for the MeerKAT Single Dish HI IM observations, focusing on the 1000-1500 MHz frequency range. We fit our satellite model to data taken using the MeerKAT telescope and study the impact of the residual contamination in the supposedly RFI free regions.

### Apply to be considered for a student ; award (Yes / No)?

Yes

### Level for award;(Hons, MSc, PhD, N/A)?

PhD

**Primary author:** ENGELBRECHT, Brandon (University of the Western Cape)**Presenter:** ENGELBRECHT, Brandon (University of the Western Cape)**Session Classification:** Astrophysics**Track Classification:** Track D1 - Astrophysics