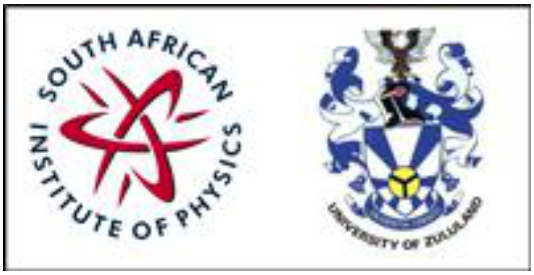

Contribution ID: **299** Type: **Poster Presentation**

Probing the Cosmological Model With Meerkat and the SKA

Wednesday, 10 July 2013 17:40 (1 hour)

Abstract content
   (Max 300 words)

Understanding how the growth of structure in the Universe evolves over cosmic time remains a key science driver in modern observational cosmology. The two-point correlation function is a fundamental probe of the galaxy distribution that allows us to quantify how galaxies cluster over a range of scales.

The forthcoming MeerKAT radio telescope array (the precursor instrument for the Square Kilometre Array - SKA) is currently being built in the Karoo and will be the most sensitive radio telescope in the southern hemisphere. Observations from MeerKAT will thus discover orders of magnitude more galaxies than current experiments and provide greater insight into the growth of structure of radio sources which we can compare to current and upcoming multi-wavelength data.

In this project we have constructed state of the art simulations of the expected MeerKAT observations, to understand the optimum calibration strategy for future surveys and provide predictions of the clustering statistics of radio galaxies.

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

yes

Level for award
 (Hons, MSc,
   PhD)?

MSc

Main supervisor (name and email)
and his / her institution

Roy Maartens

Would you like to <br> submit a short paper <br> for the Conference
 Proceedings (Yes / No)?

No

Primary author: Mr MATSHAWULE, Siyambonga (University of the Western Cape)

Co-authors: Dr MCALPINE, Kim (University of the Western Cape); Dr SMITH, Mathew (University of the Western Cape); Prof. MAARTENS, Roy (University of the Western Cape); Dr JOHNSTON, Russell (University of the Western Cape)

Presenter: Mr MATSHAWULE, Siyambonga (University of the Western Cape)

Session Classification: Poster2

Track Classification: Track D1 - Astrophysics