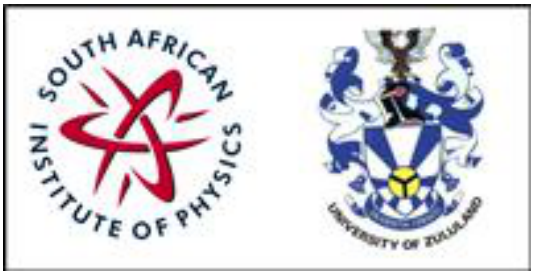


Contribution ID: **240** Type: **Oral Presentation**

# Advanced simulation techniques for the design of next generation radio interferometers

*Wednesday, 10 July 2013 13:50 (20 minutes)*


## Abstract content <br>   (Max 300 words)

We are interested in radio telescope that uses interference patterns from two (or more) antennas separated by a very large distance, or more generally modern radio interferometers with a large baseline. The Square Kilometre Array (SKA) will be an example of such radio interferometers. This project will economic development a comprehensive analytical and simulation based framework (using the software MeqTrees) that will enable us to analyse the impact of various design characteristics telescope on ultimate image quality, and study the future of calibratability such as the SKA Telescope. Ultimately, we want a system simulations that can answer issues such as “if we build a telescope with characteristic X or Y, how will this affect our image quality and science goals”?


## Apply to be<br> considered for a student <br>   award (Yes / No)?

Yes

## Level for award<br> (Hons, MSc, <br>   PhD)?

PhD

## Main supervisor (name and email)<br>and his / her institution

Prof Oleg Smirnov
o.smirnov@ru.ac.za

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

No


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**Session Classification:** Astro

**Track Classification:** Track D1 - Astrophysics