



## **South African Radio Astronomy Observatory**

### **2017 Postgraduate Bursary Conference**

**Monday 27 November 2017 to Friday 1 December 2017**

**Strand Tower Hotel, Cape Town**

### **Programme**

The South African Radio Astronomy Observatory (SARAO), established in 2017, is a National Facility of the National Research Foundation. SARAO manages South Africa's activities in the Square Kilometre Array Radio Telescope and the African Very Long Baseline Interferometry Network, the design, construction and operation of the MeerKAT Radio Telescope, the Hartebeesthoek Radio Astronomy Observatory, and the associated Human Capital Development and Commercialisation Programmes.

**Monday 27 November 2017**

**16h00 to 17h00**

**Registration**

**17h00 to 17h30**

**Group Photograph**

**Opening Event**

**Programme Director: Dr. Bernard Duah Asabere**

**17h30 to 17h40**

**Welcome**

**Dr. Rob Adam**

Managing Director  
South African Radio Astronomy Observatory

**17h40 to 18h40**

**Merging Neutron Stars: Gravitational Waves, Jets, Shocks and Kilonovae**

**Prof. Patrick Woudt**

Head of Department: Astronomy  
University of Cape Town

**&**

**Dr. Steve Crawford**

SALT Science Data Manager  
South African Astronomical Observatory

**18h40 to 18h50**

**The South African Radio Astronomy Observatory**

**Mr. Lorenzo Raynard**

Head: Communications  
South African Radio Astronomy Observatory

**18h50 to 19h00**

**Conference Notices**

**Ms. Kim de Boer**

Head: Human Capital Development  
South African Radio Astronomy Observatory

**19h00 to 20h00**

**Reception**

**Tuesday 28 November 2017**

<b>08h45 to 09h15</b>		<b>Arrival and Tea</b>	
<b>09h15 to 10h20: Plenary Session 1</b> <b>Chair: Prof. Aris Karastergiou</b>			
<b>09h15-09h45</b>	<b>Mr. Jan Noordam</b> Astron <i>Blunders and Failures</i>		
<b>09h50-10h20</b>	<b>Prof. Philip Arras</b> University of Bonn <i>Applying Information Field Theory to Radio Interferometric Imaging</i>		
<b>10h20-11h00</b>	<b>TEA</b>		
<b>11h00 to 13h00: Parallel Session 1</b>			
<b>Venue 1: Galaxies I: Gas in Galaxies</b> <b>Chair: Dr. Sarah Blyth</b>		<b>Venue 2: RFI and Receivers</b> <b>Chair: Dr. Gideon Wiid</b>	
<b>11h00-11h20</b>	<b>Dr. Roger Ianjamasimanana</b> Post-doctoral Fellow Rhodes University <i>Smooth HI Outskirts in Nearby Galaxies</i>	<b>11h00-11h20</b>	<b>Dr. Heiko Heiligendorff</b> Post-doctoral Fellow University of KwaZulu-Natal <i>The Hydrogen Intensity and Real-time Analysis eXperiment</i>
<b>11h20-11h40</b>	<b>Ms. Brenda Namumba</b> Doctoral Student Supervisors: Prof. Carignan and Dr. Passmoor University of Cape Town <i>Exploring the Low-column Density Regions of Dwarf, Irregular Galaxies in the Local Group</i>	<b>11h20-11h35</b>	<b>Mr. Orolato Mosiane</b> Masters Student Supervisor: Dr. Oozeer Northwest University <i>Machine Learning for Radio Frequency Interference Mitigation using Polarization</i>
<b>11h40-12h00</b>	<b>Ms. Marie Korsaga</b> Doctoral Student Supervisor: Prof. Carignan University of Cape Town <i>Distribution of Baryonic and Dark Matter in Nearby Galaxies</i>	<b>11h35-11h50</b>	<b>Ms. Nancy Omollo</b> Masters Student Supervisor: Dr. Wiid Stellenbosch University <i>Shielding Effectiveness Measurements using a Reverberation Chamber</i>
<b>12h00-12h20</b>	<b>Mr. Amidou Sorgho</b> Doctoral Student Supervisor: Prof. Carignan University of Cape Town <i>Early Observations of the MHONGOOSE Galaxies</i>	<b>11h50-12h05</b>	<b>Mr. Shaunel Walker</b> Masters Student Supervisor: Dr. Stander University of Pretoria and Tshwane University of Technology <i>Simulations on Different Radiometer Topologies using a Standard RF-Microwave Simulator</i>
<b>12h20-12h40</b>	<b>Mr. Letjatji Legodi</b> Doctoral Student Supervisor: Prof. Taylor University of Cape Town <i>Large Scale Magnetic Fields in Galaxies</i>	<b>12h05-12h20</b>	<b>Ms. Chanel Hannah</b> Masters Student Supervisor: Prof. de Villiers Stellenbosch University <i>Noise Temperature Characterisation for a Parabolic Antenna with Effects from Surroundings</i>
<b>12h40-12h55</b>	<b>Mrs Lauren Burnham-King</b> Masters Student Supervisors: Prof. Taylor and Dr. van der Heyden University of Cape Town <i>Detecting the Magnetic Cosmic Web through</i>	<b>12h20-12h35</b>	<b>Mr. Neils Wilke</b> Masters Student Supervisors: Dr. Gilmore and Prof. Davidson Stellenbosch University <i>Beamforming Quantization Effects on Aperture Arrays</i>

	<b><i>Deep Radio Polarization Imaging</i></b>	<b>12h35-12h55</b>	<b>Mr. Raven Kenned</b> Doctoral Student Supervisor: Prof. P. Meyer Stellenbosch University <b><i>Noise Optimization for Coupled Antenna Arrays</i></b>
<b>13h00-14h00</b>	<b>LUNCH</b>		
<b>14h00 to 15h30: Plenary Session 2: Cosmology Talks and One-Minute Poster Presentations for Antennas, Receivers &amp; RFI and Cosmology &amp; EOR</b> <b>Chair: Dr. Michelle Cluver</b>			
<b>14h00-14h30</b>	<b>Dr. Marta Spinelli</b> Post-doctoral Fellow University of the Western Cape <b><i>Polarised Synchrotron Simulations for EoR Experiments</i></b>		
<b>14h30 to 15h00</b>	<b>Dr. Abhik Ghosh</b> Post-doctoral Fellow University of the Western Cape <b><i>Early Results from HERA-19 Towards Detecting Redshifted 21-cm HI Signal</i></b>		
<b>15h00 to 15h30</b>	<b>One-Minute Poster Presentations: Antennas, Receivers &amp; RFI and Cosmology &amp; EOR</b>  <b>1. Antennas, Receivers, RFI and EM</b>  <b>Mr. Corey Smale</b> Master Student Supervisors: Dr. Gilmore and Prof. Davidson Stellenbosch University <b><i>Thermal Analysis of a Dense Dipole Array for the SKA Mid-Frequency Aperture Array</i></b>  <b>Mr. Michael Johnston</b> Masters Student Supervisor: Dr. Van Niekerk Stellenbosch University <b><i>Wideband Feed Design for the Pyramidal Sinuous Antenna</i></b>  <b>Mr. Fahmi Mokhupuki</b> Doctoral Student Supervisor: Prof. de Villiers Stellenbosch University <b><i>Wideband Feed for SKA</i></b>  <b>Mr. Stanley Kuja</b> Doctoral Student Supervisor: Dr. Wiid Stellenbosch University <b><i>Optimization of Impulse Radiating Antenna for Time Domain Metrology</i></b>  <b>Mr. Brandt Klopper</b> Doctoral Student Supervisor: Prof. de Villiers Stellenbosch University <b><i>Antenna Elements for Sparse-Regular Aperture Arrays</i></b>		

**Mr. Kabelo Kesebonye**

Masters Student  
Supervisor: Dr. Chiang  
University of KwaZulu-Natal

***Commissioning of the HIRAX 8-Element Prototype at HartRAO***

**Mr. Sitwala Mundia**

Masters Student  
Supervisor: Prof. Geschke  
University of Cape Town

***MeerKAT Extended Band 14.5 to 20 GHz***

**Mr. Isaac Sihlangu**

Masters Student  
Supervisors: Dr. Aniyen and Prof. Bassett  
University of Cape Town

***MeerKAT Radio Frequency Interference Characterization using Machine Learning Methods***

**Mr. Christopher Atkinson**

Masters Student  
Supervisor: Dr. Wiid  
Stellenbosch University

***UAV Design for Larger-Scale RFI Mapping***

**Mr. Jan-Willem Steeb**

Doctoral Student  
Supervisors: Prof. Davidson and Prof. Wijnholds  
Stellenbosch University

***Computationally Efficient Near-field Radio Frequency Source Localisation***

**Mr. Daniel Czech**

Doctoral Student  
Supervisors: Profs. Inggs and Mishra  
University of Cape Town

***A Dictionary-Based Approach to Identifying Transient RFI***

**Mr. Gerald Nathan Balekaki**

Doctoral Student  
Supervisors: Drs. Kuttel, Blyth and Schroder  
University of Cape Town

***A Database Model for Radio Frequency Interference (RFI) Data***

**2. Cosmology & EOR**

**Mr. Nandrianina Randriamiarinarivo**

Masters Student  
Supervisor: Prof. Maartens  
University of the Western Cape

***Determining the Observer's Velocity using Radio Continuum Surveys***

**Mr. Liantsoa Finaritra Randrianjanahary**

Masters Student  
Supervisor: Prof. Santos  
University of the Western Cape

***Cosmology with BAO and Redshift Space Distortions: The Effect of Non-Linear Contamination***

	<p><b>Mr. Tumelo Mangena</b> Masters Student Supervisor: Prof. Santos University of the Western Cape <i>Fast Power Spectrum Generation of the 21cm Signal from Reionization using Machine Learning Techniques</i></p> <p><b>Mr. Albert Baloyi</b> Masters Student Supervisor: Prof. Maartens University of the Western Cape <i>Testing the Statistical Isotropy of the Universe using Radio Survey Data</i></p> <p><b>Mr. Jan-Albert Viljoen</b> Masters Student Supervisor: Prof. Maartens University of the Western Cape <i>Predicting at What Level of Accuracy General Relativity and Alternative Gravitational Theories could be Ruled out using MeerKAT</i></p> <p><b>Mr. Brandon Engelbrecht</b> Masters Student Supervisors: Prof. Santos and Dr. Fonseca University of the Western Cape <i>Extracting Baryon Acoustic Oscillations from an HI intensity mapping survey with MeerKAT</i></p> <p><b>Mr. Sheean Joliceur</b> Doctoral Student Supervisors: Prof. Maartens and Dr. Umeh University of the Western Cape <i>The Galaxy Bispectrum</i></p> <p><b>Mr. Eliab Malefahlo</b> Doctoral Student Supervisor: Prof. Santos University of the Western Cape <i>The Radio Luminosity Function Below the 1.4 GHz</i></p> <p><b>Mr. Liju Philip</b> Doctoral Student Supervisors: Prof. Sievers and Dr. Chiang University of KwaZulu-Natal <i>Searching for the Cosmic Dawn from the Sub-Antarctic</i></p>
15h30-16h00	TEA

<b>16h00 to 17h00: Parallel Session 2</b>			
<b>Venue 1: Cosmology and EOR I</b> Chair: Prof. Romeel Dave		<b>Venue 2: Antennas I</b> Chair: Dr. Daniel Ludick	
<b>16h00-16h20</b>	<b>Mr. Siyambonga Matshawule</b> Doctoral Student Supervisors: Profs. Santos and Maartens University of the Western Cape <i>Foreground Cleaning with Primary Beam Effects I: Frequency Dependence</i>	<b>16h00-16h20</b>	<b>Dr. Khan Asad</b> Post-doctoral Fellow SKA SA / University of the Western Cape and Rhodes University <i>MeerKAT Primary Beams: Measurement, Modeling and Behaviour</i>
<b>16h20-16h40</b>	<b>Ms. Chuneeta Devi Nunhokee</b> Doctoral Student Supervisor: Dr. Bernardi Rhodes University <i>Observing Cosmic Reionization with PAPER: Polarized Foreground Simulation and All Sky Images</i>	<b>16h20-16h35</b>	<b>Mr. Tristan Steele</b> Masters Student Supervisors: Drs. Venter and Ludick and Prof. Davidson Stellenbosch University <i>Coupled Structural and Electromagnetic Analysis of a Radio Telescope</i>
<b>16h40-16h55</b>	<b>Mr. Charles Mpho Takalana</b> Masters Student Supervisor: Prof. Colafrancesco University of the Witwatersrand <i>Analysis of Differential Observations of the Cosmological Radio Background: Studying the SZE-21cm</i>	<b>16h35-16h50</b>	<b>Mr. Keshav Sewraj</b> Masters Student Supervisor: Prof. Botha Stellenbosch University <i>Numerical Electromagnetic Analysis of Large Antenna Arrays</i>
<b>17h00 to 18h00: Poster Session I: Antennas, Receivers &amp; RFI and Cosmology &amp; EOR</b>			

**Wednesday 29 November 2017**

<b>08h45 to 09h15</b>		<b>Arrival and Tea</b>	
<b>09h15 to 10h20: Plenary Session 3</b> <b>Chair: Prof. Oleg Smirnov</b>			
<b>09h15-09h45</b>	<b>Prof. Rene Breton</b> University of Manchester <i>Fundamental Physics Using Binaries</i>		
<b>09h50-10h20</b>	<b>Prof. Roger Blandford</b> Stanford University <i>Pulsars, Magnetars and Fast Radio Bursts</i>		
<b>10h20-11h00</b>	<b>TEA</b>		
<b>11h00 to 13h00: Parallel Session 3</b>			
<b>Venue 1: Transients and Stellar</b> <b>Chair: Dr. Girish Beeharry</b>		<b>Venue 2: Signal / Data Processing and Transport</b> <b>Chair: Prof. Anton van Wyk</b>	
<b>11h00-11h20</b>	<b>Dr. Justine Tarrant</b> Post-doctoral Fellow University of the Witwatersrand <i>Making Light of Gravitational Waves</i>	<b>11h00-11h20</b>	<b>Mr. Lekhobola Tsoeunyane</b> Doctoral Student Supervisors: Dr. Winberg and Prof. Inggs University of Cape Town <i>Domain-Specific High-Level FPGA Synthesis for Software-Defined Radio</i>
<b>11h20-11h40</b>	<b>Ms. Kerry Paterson</b> Doctoral Student Supervisors: Profs. Woudt and Warner University of Cape Town <i>MeerLICHT: MeerKAT's optical eye</i>	<b>11h20-11h40</b>	<b>Mr. Shukree Wassiin</b> Doctoral Student Supervisor: Prof. Gibbons Nelson Mandela University <i>VCSEL-Based Time and Frequency Dissemination System Across Optical Fibre</i>
<b>11h40-12h00</b>	<b>Dr. Marcellin Atemkeng</b> Post-doctoral Fellow Rhodes University <i>Data Compression in Radio Interferometry</i>	<b>11h40-12h00</b>	<b>Mr. George Isoe</b> Doctoral Student Supervisors: Profs. Gibbon and Leitch and Dr. Gamatham Nelson Mandela University <i>Capacity, Flexibility and Carrier efficiency upgrade for next-generation optical communication networks</i>
<b>12h00-12h15</b>	<b>Ms. Isabella Rammala</b> Masters Student Supervisor: Prof. Karastergiou Rhodes University <i>Broadband Observations of Pulsar Profiles and Frequency Dependent DMs</i>	<b>12h00-12h15</b>	<b>Mr. Balone Ndaba</b> Masters Student Supervisor: Dr. Winberg University of Cape Town <i>Parallel Dataflow Signal Processing Framework for Intel Xeon Phi</i>
<b>12h15-12h30</b>	<b>Ms. Mavis Seidu</b> Masters Student Supervisors: Prof. van der Walt and Dr. Goedhart North-West University <i>Variability of Methanol and OH Masers Associated with the Star-Forming Region G339.62-0.12</i>	<b>12h15-12h30</b>	<b>Mr. Frans Shafuda</b> Masters Student Supervisors: Profs. van Wyk and Versfeld University of the Witwatersrand <i>A Study of Toeplitz Decorrelation Techniques for Direction of Arrival Estimation of Coherent Sources</i>



<b>12h30-12h45</b>	<b>Mr. Onkabetse Sengate</b> Doctoral Student Supervisor: Prof. Sievers University of Kwazulu-Natal <b>Fast Radio Bursts at 325 GHz</b>	<b>12h30-12h45</b>	<b>Mr. Kagiso Leburu</b> Masters Student Supervisor: Prof. Gibbons Nelson Mandela University <b>Optical Pulse-per-Second Timing Signal Characterisation and Distribution over Optical Fibre Networks</b>
<b>12h45-13h00</b>	<b>Ms. Miriam Mumbua Nyamai</b> Doctoral Student Supervisors: Prof. Woudt and Dr. Ribeiro University of Cape Town <b>Radio Emission from Novae: V445 Pup and V339 Del</b>	<b>12h45-13h00</b>	<b>Mr. Katleho Madisa</b> Masters Student Supervisor: Prof. Joubert University of the Witwatersrand <b>Integration of MeerKAT and SKA Telescopes using KATCP Tango Translators</b>
<b>13h00-14h00</b>	<b>LUNCH</b>		
<b>14h00 to 15h30: Plenary Session 4: Galaxies and Stellar, Famelab and Poster Presentations: Signal/Data Transport and Processing, Calibration, Imaging &amp; Data Analysis, Extragalactic &amp; The Galaxy and Stellar &amp; Time Domain</b> <b>Chair: Dr. Bradley Frank</b>			
<b>14h00-14h30</b>	<b>Dr. Nathan Deg</b> Post-doctoral Fellow University of Cape Town <b>GalactICS with Gas</b>		
<b>14h30-15h00</b>	<b>Ms. Vereese van Tonder</b> South African Radio Astronomy Observatory <b>Famelab: Talking Science</b>		
<b>15h00-15h30</b>	<p><b>One-Minute Poster Presentations: Signal/Data Transport &amp; Processing, Calibration, Imaging &amp; Data Analysis, Extragalactic &amp; The Galaxy and Stellar &amp; Time Domain Science</b></p> <p><b>1. Signal/Data Transport &amp; Processing</b></p> <p><b>Ms. Dlamini Phumla</b> Doctoral Student Supervisor: Prof. Gibbon Nelson Mandela Metropolitan University <b>Ant Colony Optimization for IPoDWDM Flexible Spectrum Optical Fibre Networks</b></p> <p><b>Mr. Cyrille Yemeli Tasse</b> Masters Student Supervisor: Simon Winberg University of Cape Town <b>Computer Application as Digital System Ware</b></p> <p><b>2. Calibration, Imaging &amp; Data Analysis</b></p> <p><b>Mr. Antonio Peters</b> Masters Student Supervisor: Prof. Smirnov Rhodes University <b>Creating and Optimizing a Sky Tessellation Algorithm</b></p> <p><b>Mr. James Chege</b> Masters Student Supervisors: Prof. Smirnov and Dr. Bernardi Rhodes University <b>All Sky Imaging with PAPER</b></p>		

**Mr. Clemence Mungwariri**

Masters Student

Supervisors: Dr. Bernardi and Prof. Smirnov

Rhodes University

**Diffuse Radio Emission in Galaxy Clusters**

**Mr. Eric Maina**

Masters Student

Supervisors: Drs. Józsa and Lochner and Prof. Smirnov

Rhodes University

**Bayesian TiRiFiC**

**Mr. Ulrich Armel Mbou Sob**

Doctoral Student

Supervisors: Prof. Smirnov and Dr. Grobler

Rhodes University

**Robust Calibration using a Complex Student-t Distribution and Wirtinger derivatives**

**Mr. Mthokozisi Mdlalose**

Doctoral Student

Supervisor: Prof. Yinzhe Ma

University of KwaZulu-Natal

**Calibration Techniques in 21-cm Experiment: Quasi-Redundant Calibration Analysis**

**Mr. Nhlakanipho Kwazi Mthembu**

Doctoral Student

Supervisors: Drs. Bernardi Grobler

Rhodes University

**Commissioning HERA-19**

**3. Extragalactic & The Galaxy**

**Dr. Devin Crichton**

Post-doctoral Fellow

University of KwaZulu-Natal

***HIRAX: Cosmological Forecasts and Big Data Challenges***

**Ms. Nthabiseng Khanye**

Masters Student

Supervisor: Prof. Colafrancesco

University of the Witwatersrand

***Multi-frequency Observations and Analysis of Abell 1682***

**Mr. Gift Sichone**

Masters Student

Supervisor: Dr. Bernardi

Rhodes University

***Observation of Diffused Radio Emission in Galaxy Clusters***

**Mr. Clemence Mungwariri**

Masters Student

Supervisors: Prof. Smirnov and Dr. Bernardi

Rhodes University

***Diffuse Radio Emission in Galaxy Clusters***

	<p><b>Ms. Julia Healy</b>          Doctoral Student          Supervisors: Dr. Blyth and Prof. Verheijen          University of Cape Town and University of Groningen  <i>The Evolution of HI Gas in Cluster Substructure</i></p> <p><b>Mr. Tariq Blecher</b>          Doctoral Student          Supervisors: Dr. Deane and Prof. Heywood          Rhodes University  <i>Gravitationally Lensed HI with MeerKAT and the SKA</i></p> <p><b>Mr. Harris Yao Fortune Marc</b>          Doctoral Student          Supervisors: Profs. Santos and Jarrett and Dr. Cluver          University of the Western Cape  <i>Specific Star Formation in the Cosmic Web: A Wise Study of the Kids-South Region</i></p> <p><b>Ms. Sinenhlanhla Sikhosana</b>          Doctoral Student          Supervisors: Prof. Moodley and Dr. Knowles          University of KwaZulu-Natal  <i>Diffuse Radio Emission in ACTPol Clusters</i></p> <p><b>Mr. Emmanuel Proven-Adzri</b>          Doctoral Student          Supervisor: Prof. Hoare          University of Ghana  <i>High Resolution Study of G75.76+0.34</i></p> <p><b>Mr. Abubakr Yagob</b>          Masters Student          Supervisors Drs. Serylac and Mohamed, and Prof. Karastergiou          University of Cape Town  <i>Dispersion Measure Variations in Pulsar Observations with LOFAR</i></p>		
15h30-16h00	TEA		
16h00 to 17h00: Parallel Session 4			
Venue 1: Galaxies II: High Energy Chair: Dr. Matt Hilton		Venue 2: Calibration, Imaging & Data Analysis I Chair: Dr. Roger Deane	
16h00-16h20	<p><b>Ms. Nikki Pekeur</b>          Doctoral Student          Supervisors: Profs. Kraan-Korteweg and Taylor          University of Cape Town  <i>The Optical Polarization Variability of the Blazar PKS 2155-304</i></p>	16h00-16h20	<p><b>Mr. Ben Hugo</b>          Doctoral Student          Supervisor: Prof. Smirnov          Rhodes University  <i>Unleashing the MeerKAT</i></p>
16h20-16h40	<p><b>Dr. Geoffrey Beck</b>          Post-doctoral Fellow          University of the Witwatersrand  <i>Constraining Dark Matter Models in M31 with Radio Data</i></p>	16h20-16h40	<p><b>Ms. Makhuduga Sebokolodi</b>          Doctoral Student          Supervisors: Profs. Smirnov, Perley and Carilli, and Dr. Makhathini          Rhodes University  <i>A New Deep 2-18 GHz JVLA Polarimetric Study of Cygnus A: Faraday Rotation (FR) in the Lobes and Cluster Gas</i></p>

<p><b>16h40-17h00</b></p>	<p><b>Dr. Dimitry Prokhorov</b>  Post-doctoral Fellow  University of the Witwatersrand  <i><b>On the Hadronic Content of the Lobes of the Radio Galaxy Fornax A</b></i></p>	<p><b>16h40-17h00</b></p>	<p><b>Mr. Jonathan Kenyon</b>  Doctoral Student  Supervisor: Prof. Smirnov  Rhodes University  <i><b>CubiCal: Fast Calibration Exploiting Complex Optimisation</b></i></p>
<p><b>17h00 to 18h00: Poster Session II: HPC, DSP &amp; Software, Calibration, Imaging &amp; Data Analysis, Extragalactic &amp; The Galaxy and Stellar &amp; Time Domain</b></p>			

**Thursday 30 November 2017**

<b>08h45 to 09h15</b>		<b>Arrival and Tea</b>	
<b>09h15 to 10h30: Plenary Session 4</b> Chair: Prof. Claude Carignan			
<b>09h15-09h45</b>	<b>Dr. Jennifer Schober</b> École Polytechnique Fédérale de Lausanne (EPFL) <i>Tracing Star Formation with Non-Thermal Radio Emission</i>		
<b>09h50-10h20</b>	<b>Dr. Natasha Maddox</b> ASTRON <i>HI at Cosmological Redshifts</i>		
<b>10h20-11h00</b>	<b>TEA</b>		
<b>11h00 to 13h00: Parallel Session 4</b>			
<b>Venue 1: Cosmology and EOR II</b> Chair: Dr. Ed Elson		<b>Venue 2: Calibration, Imaging and Data Analysis II</b> Chair: Dr. Simon Winberg	
<b>11h00-11h20</b>	<b>Dr. Jose Fonseca</b> Post-doctoral Fellow University of the Western Cape <i>Probing GR with Multi-wavelength Cosmology</i>	<b>11h00-11h15</b>	<b>Mr. Ramaila Athanaseus</b> Masters Student Supervisors: Prof. Smirnov and Dr. Makhathini Rhodes University <i>A Practical Survey of Novel and Legacy Radio Interferometry Imaging Algorithms and Packages</i>
<b>11h20-11h40</b>	<b>Mr. Amadeus Witzemann</b> Doctoral Student Supervisors: Profs. Santos, Weltman and Clarkson University of the Western Cape <i>Multitracer Estimators</i>	<b>11h15-11h30</b>	<b>Mr. Alexander Akoto-Danso</b> Masters Student Supervisors: Prof. Smirnov and Drs. Deane and Bernardi <i>A Pilot Wide-field VLBI Survey of the Goods-North Field</i>
<b>11h40-11h55</b>	<b>Ms. Diane Klutse</b> Masters Student Supervisor: Dr. Bernardi Rhodes University <i>Foreground Simulations for Observations of the Global 21-cm Signal</i>	<b>11h30-11h45</b>	<b>Ms. Zafirah Hosenie</b> Masters Student Supervisors: Prof. Bassett and Dr. Oozeer North-West University <i>Source Classification using Machine Learning</i>
<b>11h55-12h10</b>	<b>Mr. Sibonelo Ngobese</b> Masters Student Supervisor: Prof. Santos University of the Western Cape <i>Point Source Simulations and Foreground Cleaning Techniques for HI Intensity Mapping</i>	<b>11h45-12h00</b>	<b>Mr. Samuel Twum</b> Masters Student Supervisors: Prof. Smirnov and Drs. Jozsa, Kamphuis and Spekkens <i>TiRiFiG, a Graphical 3D Kinematic Modelling Tool</i>
<b>12h10-12h30</b>	<b>Dr. Nidhi Pant</b> Post-doctoral Fellow University of the Western Cape <i>Kinematic Dipole from CMB and LSS</i>	<b>12h00-12h10</b>	<b>Mr. Kelachukwu Iheanetu</b> Doctoral Student Supervisors: Prof. Smirnov and Dr. Girard Rhodes University <i>Modelling the JVLA Primary Beams with Characteristic Basis Function</i>
<b>12h30-12h50</b>	<b>Dr. Mario Ballardhi</b> Post-doctoral Fellow University of the Western Cape <i>Probing Primordial Features with Cosmological Surveys</i>	<b>12h10-12h25</b>	<b>Mr. Paul Wanjohi</b> Masters Student Supervisors: Pros. Gain and Marais University of Cape Town <i>Tangible Virtual Reality in Radio Astronomy</i>

		12h25-12h40	<b>Mr. Simphiwe Zitha</b> Masters Student Supervisor: Dr. Aniyan Rhodes University <i>ZCal: Machine Learning for Calibrating Radio Interferometric Data</i>
13h00-14h00	LUNCH		
<b>14h00 to 15h30: Plenary Session 5: Calibration, Imaging &amp; Data Analysis and Galaxies</b> Chair: Dr. Cynthia Chiang			
14h00-14h30	<b>Dr. Jingying Wang</b> Post-doctoral Fellow University of the Western Cape <i>KAT-7 Data Calibration and Map Making Process for HI Intensity Mapping Project</i>		
14h30-15h00	<b>Dr. Imogen Whittam</b> Post-doctoral Fellow University of the Western Cape <i>Properties of Radio Galaxies in a 1.4 GHz JVLA Survey of Stripe 82</i>		
15h00-15h30	<b>Dr. Zara Randriamanakoto</b> Post-doctoral Fellow University of Cape Town <i>Deep Low-Frequency GMRT Observations of the ELAIS-N1 Field</i>		
15h30-16h00	TEA		
<b>16h00 to 17h00: Parallel Session 5</b>			
<b>Venue 1: Galaxies III</b> Chair: Dr. Kenda Knowles		<b>Venue 2: Antennas II</b> Chair: Prof. Tinus Stander	
16h00-16h20	<b>Mr. Mika Rafieferantsoa</b> Doctoral Student Supervisor: Prof. Dave University of the Western Cape <i>HI in Satellite Galaxies</i>		16h00-16h15 <b>Ms. Ridalise Louw</b> Masters Student Supervisor: Prof. de Villiers Stellenbosch University <i>Rational Interpolation Using Multi-Fidelity Data</i>
16h20-16h40	<b>Mr. Takalani Enos Marubini</b> Doctoral Student Supervisor: Prof. Maartens University of the Western Cape <i>Mapping the Near-Infrared Counterparts of Radio Sources</i>		16h15-16h30 <b>Mr. Joshua Blom</b> Masters Student Supervisors: Drs. Wiid and van Daalen Stellenbosch university <i>Accurate Vision-Based Localisation of A Multi-Rotor For Antenna Array Characterisation</i>
16h40-16h55	<b>Mr. Sphiwe Thwala</b> Masters Student Supervisor: Prof. Colafrancesco University of the Witwatersrand <i>Discovery of Extended Radio Emission at Low and Mid-Frequency from a Low-Redshift Radio Galaxy</i>		16h40-16h55 <b>Dr. Temwani Joshua Phiri</b> Post-doctoral Fellow Stellenbosch University <i>Multipath Analysis for the MeerKAT Core Site</i>
<b>17h00 to 18h00: Steve Rawlings Memorial Lecture</b>  <b>Prof. Kavilan Moodley</b> University of KwaZulu-Natal  Chair: Prof. Jonathan Sievers			

Friday 1 December 2017

09h00 to 09h30	Arrival and Tea
<b>09h30 to 10h30: Plenary Session 5</b> Chair: Prof. Bruce Bassett	
09h30-10h00	<b>Dr. Arun Aniyán</b> Post-doctoral Fellow Rhodes University <i>Auto Encoding for Radio Astronomy</i>
10h00-10h30	<b>Prof. Angela Taylor</b> Oxford University <i>The C-Band All-Sky Survey</i>
10h30-11h00	TEA
<b>11h00 to 12h00: Plenary Session 6: Question and Answer Session</b> Chair: Prof. Mario Santos	
<b>12h00 to 12h15: Closing Remarks</b>	
12h15	LUNCH TO GO