



**South African Square Kilometre Array Project
Five Postdoctoral Fellowships Commencing in 2018**

Call for Applications

Closing date for applications: 25 September 2017 (Date extended)

The South African SKA Project (SKA SA) invites applications from suitably qualified candidates for five postdoctoral fellowships, commencing in 2018. Successful applicants must be able to commence with their postdoctoral fellowships on, or before, 1 October 2018. Applicants must have obtained their PhD degree within five years of 1 October 2018, or must have been actively involved in relevant research since obtaining their PhD degrees.

SKA SA postdoctoral fellowships are awarded for a period of two years in the first instance, but may be extended to a third year if agreed to by the host university, the postdoctoral fellow and SKA SA. The current value of a postdoctoral fellowship is ZAR 350,000 per annum (non-taxable), and this amount is supplemented by travel and equipment grants (the value of the postdoctoral fellowship may be adjusted to account for annual inflation). There is no relocation grant for postdoctoral fellows.

The fellowships are only tenable at South African universities, and all applications must be endorsed by the host / supervisor at the university where the fellowship will be undertaken. A list of potential supervisors who have indicated that they are willing to host SKA SA post-doctoral fellows is provided in the table below. Applicants are encouraged to investigate the research specializations of the individual hosts and institutions to inform their choices, and match their own strengths and interests.

The SKA SA postdoctoral fellowship programme supports research that is relevant to the scientific and technical goals of the organization, and for 2018 SKA SA will consider applications that propose research in the following areas:

1. Radio Pulsar and Fast-Transient science, instrumentation and data analysis (including real-time RFI detection).
2. Real-time Signal Processing instrumentation for Radio Astronomy, specifically using FPGA and GPU platforms.
3. Big Data topics, including the development of hardware (e.g. Micro-servers and data storage solutions).
4. Instrumentation and data analysis for Radio Frequency Interference (RFI) detection, analysis and archival.
5. Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019.

Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.

6. Epoch of Reionization and Intensity Mapping data reduction and analysis.
7. Interferometric Data Processing and Analysis, including calibration and imaging.
8. C-BASS South data processing and C-BASS all-sky data analysis.
9. Radio Astronomy antennas and receivers.

Apply at: <https://skagrants.nrf.ac.za/FPF/>

SKA SA Postdoctoral Fellowship Hosts for 2018

Host	University	Email address	Research areas
Prof Amit Kumar Mishra	University of Cape Town	akmishra@ieee.org	-Radio Pulsar and Fast-Transient science, instrumentation and data analysis (including real-time RFI detection).
			-Big Data topics, including the development of hardware (e.g. Micro-servers and data storage solutions).
			-Instrumentation and data analysis for Radio Frequency Interference (RFI) detection, analysis and archival.
Prof Bruce Bassett and Dr. Michelle Lochner	University of Cape Town/ AIMS	bruce.bassett@gmail.com	-Radio Pulsar and Fast-Transient science, instrumentation and data analysis (including real-time RFI detection).
			-Instrumentation and data analysis for Radio Frequency Interference (RFI) detection, analysis and archival.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
Prof Patrick Woudt	University of Cape Town	pwoudt@ast.uct.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
Prof Kavilan Moodley	University of KwaZulu-Natal	moodleyk41@ukzn.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
			-Epoch of Reionization and Intensity Mapping data reduction and analysis.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
Prof Claude Carignan	University of Cape Town	ccarignan@ast.uct.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
Dr. H Cynthia Chiang	University of KwaZulu-Natal	chiang@ukzn.ac.za	-Epoch of Reionization and Intensity Mapping data reduction and analysis.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
			-C-BASS South data processing and C-BASS all-sky data analysis.

			-Radio Astronomy antennas and receivers
Kurt van der Heyden	University of Cape Town	heyden@ast.uct.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
			-Big Data topics, including the development of hardware (e.g. Micro-servers and data storage solutions).
Dr. Matt Hilton	University of KwaZulu-Natal	hilton@ukzn.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
Prof Dirk IL de Villiers	Stellenbosch University	ddv@sun.ac.za	-Radio Astronomy antennas and receivers
Dr. Gianni Bernardi	Rhodes University	giannibernardi75@gmail.com	-Epoch of Reionization and Intensity Mapping data reduction and analysis.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
Prof Matt Jarvis	University of the Western Cape and Oxford University	matt.jarvis@physics.ox.ac.uk	-Interferometric Data Processing and Analysis, including calibration and imaging.
Prof Michael Inggs	University of Cape Town	Michael.Inggs@uct.ac.za	-Radio Pulsar and Fast-Transient science, instrumentation and data analysis (including real-time RFI detection).
			-Real-time Signal Processing instrumentation for Radio Astronomy, specifically using FPGA and GPU platforms.
			-Instrumentation and data analysis for Radio Frequency Interference (RFI) detection, analysis and archival.
			-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
Dr. Ian Heywood	Rhodes University	ianh@astro.ox.ac.uk	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
Dr. Pieter Gideon Wiid	Stellenbosch University	wiidg@sun.ac.za	-Instrumentation and data analysis for Radio Frequency Interference (RFI) detection, analysis and archival.
Prof Oleg Smirnov	Rhodes University	o.smirnov@ru.ac.za	-Radio Pulsar and Fast-Transient science, instrumentation and data analysis (including real-time RFI detection).
			-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are

			directly linked to approved MeerKAT Large Survey Projects.
			-Epoch of Reionization and Intensity Mapping data reduction and analysis.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
			-Radio Pulsar and Fast-Transient science, instrumentation and data analysis (including real-time RFI detection).
			-Real-time Signal Processing instrumentation for Radio Astronomy, specifically using FPGA and GPU platforms.
			-Big Data topics, including the development of hardware (e.g. Micro-servers and data storage solutions).
			-Instrumentation and data analysis for Radio Frequency Interference (RFI) detection, analysis and archival.
Prof Jonathan Sievers	University of KwaZulu-Natal	sieversj@ukzn.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
			-Epoch of Reionization and Intensity Mapping data reduction and analysis.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
			-C-BASS South data processing and C-BASS all-sky data analysis.
			-Radio Astronomy antennas and receivers.
Prof Mario Santos	University of Cape Town	mariogrs@gmail.com	-Epoch of Reionization and Intensity Mapping data reduction and analysis.
			-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.

Prof Renee C Kraan-Korteweg	University of Cape Town	kraan@ast.uct.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
Prof Russ Taylor	University of Cape Town / University of the Western Cape	russ@idia.ac.za	-Big Data topics, including the development of hardware (e.g. Micro-servers and data storage solutions).
			-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
Dr. Roger Deane	Rhodes University	r.deane@ru.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
Dr. Sarah Blyth	University of Cape Town	sarblyth@ast.uct.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
			-Instrumentation and data analysis for Radio Frequency Interference (RFI) detection, analysis and archival.
			-Interferometric Data Processing and Analysis, including calibration and imaging.
Prof Sergio Colafrancesco	University of the Witwatersrand	Sergio.colafrancesco@wits.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
Prof Tinus Stander	University of Pretoria	tinus.stander@up.ac.za	-Radio Pulsar and Fast-Transient science, instrumentation and data analysis (including real-time RFI detection).
			-Real-time Signal Processing instrumentation for Radio Astronomy, specifically using FPGA and GPU platforms.
			-Radio Astronomy antennas and receivers.

Dr. Yin-Zhe Ma	University of KwaZulu-Natal	ma@ukzn.ac.za	-Epoch of Reionization and Intensity Mapping data reduction and analysis.
Dr. Magaretha Pretorius	University of Cape Town	retha@sao.ac.za	-Science topics that involve the exploitation of MeerKAT capabilities projected to be available by 2019. Multiwavelength projects will be considered that are directly linked to approved MeerKAT Large Survey Projects.
Prof Reza Malekian	University of Pretoria	Reza.malekian@up.ac.za	-Big Data topics, including the development of hardware (e.g. Micro-servers and data storage solutions).
			-Interferometric Data Processing and Analysis, including calibration and imaging.