

CONFERENCE OF THE AFRICAN ASTRONOMICAL SOCIETY - AfAS-2022

PROGRAMME

Day 1 (Monday: 14 March 2022)

Session 1: Opening Ceremony

Zoom Link - https://us06web.zoom.us/j/87565297820?pwd=ek1NU2M2OThTaUVFVmc3ZjR2MnNxZz09

09:00 - 10:25 (CAT)	
	09:05 – 09:10: Remarks by the Programme Director (Prof. Petri Vaisanen - Director: SAAO)
	09:10 – 09:20: Welcoming Remarks by the President of AfAS and introduction of the South African Minister of Higher Education, Science and Innovation (Prof. Jamal Mimouni)
	09:20 – 09:40: Opening Keynote Address by the South African Minister of Higher Education, Science, and Innovation (Dr Bonginkosi Emmanuel Nzimande)
	09:40 – 09:50: Message from African Union Commissioner for Human Resources, Science and Technology (Prof. Mohamed Belhocine)
	09:50 - 09:55: Message from President of International Astronomical Union (IAU) - (Prof. Debra Meloy Elmegreen)
	09:55 – 10:00: Message from North African Astronomy Community (Prof. Gad Mohamed El-Qady)
	10:00 – 10:05: Message from East African Astronomy Community (Alemiye Mamo)
	10:05 – 10:10: Message from West African Astronomy Community (Dr Bonaventure Okere)
	10:10 – 10:15: Message from the CEO of the National Research Foundation (NRF) – (Prof. Fulufhelo Nelwamondo)
	10:15 – 10:20: Message from President of South African Institute of Physics (SAIP) – (Prof. Makaiko Chithambo)
10:30 – 10:45	10:20 – 10:25: Message from the IAU Office of Astronomy for Development (IAU-OAD) – (Kevin Govender) Tea Break

Session 2: Plenary 1 (Science and Outreach)

Zoom Link - https://us06web.zoom.us/j/82157122439?pwd=cVZMWUs4SE82b25VMW9CRUthRHUxQT09

Chair: Jamal Mimouni

10:45 - 11:10 (CAT)	Donald Kurtz, North-West University - NWU (South Africa) Asteroseismology across the HR diagram
11:10 - 11:35	Francoise Combes*, Observatoire de Paris (France) Active Galactic Nuclei (AGN) fueling and feedback
11:35 – 11:50	Lina Canas*, IAU-OAO IAU Office for Astronomy Outreach: Building Bridges Through Astronomy Dissemination and International Cooperation
11:50 – 12:15	Alemiye Mamo, EA-ROAD/ESSTI (Ethiopia) East Africa's potential for astronomical investment and development
12:15 – 13:15	Lunch

Session 3: Plenary 2 (Science and Outreach)

Zoom Link - https://us06web.zoom.us/j/85852452779?pwd=S3FLQzhIMDFwcitHaGpqRW9UZIR3dz09 Chair: Lerothodi Leeuw

13:15 – 13:40 (CAT)	Roy Maartens, University of the Western Cape - UWC (South Africa) Cosmology with MeerKAT and SKAO	
13:40 – 14:05	Nichelle Lochner, UWC - South African Radio Astronomy Observatory - SARAO (South Africa) Anomaly Detection in Astronomical Data using Machine Learning	
14:05 – 14:30	Michael Backes, University of Namibia - UNAM (Namibia) The Africa Millimetre Telescope project in Namibia	
14:30 – 14:55	Mirjana Povic, Ethiopian Space Science and Technology Institute - ESSTI (Ethiopia); Instituto de Astrofisica de Andalucia - IAA(Spain)	
14:55 – 15:20	Jamal Mimouni, University of Constantine & AfAS (Algeria) "Astronomy in a nutshell: what every amateur astronomer should know about the Cosmos"	

15:20 – 15:30: Tea break

Session 4: Special Session 1 (Parallel) Advancing global collaborations Convener: Declan Kirrane*

Zoom Link - https://us06web.zoom.us/j/82208774439?pwd=OXFRMU1TTmxENVhQKzRUV2JKa3hzdz09

Abstract:

Scientific collaboration increasingly needs the support of governments and policymakers. This is because collaboration requires quite a number of things to happen at the same time including, enabling rules and procedures, funding mechanisms that support collaboration across countries and continents, and measures to ensure that future cooperation is inclusive and diverse, enabling a rich tapestry of partners to benefit from collaboration and for the outputs to be shared by many. This session will bring together experts with policy-making experience as well as policymakers in order to understand the future requirements for collaborations in astronomical and related sciences across nations as well as at global level.

15:30 - 16:30 (CAT)

Line-up:

- 1. Declan Kirrane AERAP (Moderator), Belgium
- 2. Lissa Matyas Science and Tech Collab, Canada
- 3. Intisar Elzein University of Khartoum, Sudan
- 4. Barbara Cavalazzi University of Bologna, Italy
- 5. Sumitra Rajagopalan Bioastratech, Canada
- 6. Erick Ruth ImiBio, Argentina
- 7. Brian McCallow Sahel Coalition, Belgium
- 8. Domingos Barbosa, Portugal

Training Session (Parallel)
Virtual Observatory Tools
Convener: Khadija El Bouchefry*

Zoom Link- https://us06web.zoom.us/j/82240136978?pwd=cHNVY2JPOURiaWsxL3JwUCtTOFFwUT09

15:30 - 16:30 (CAT)

Abstract:

Virtual Observatory (VO) is a collection of inter-operating data archives and software tools which use the Internet to conduct astronomical research programs in a scientific research environment.

Virtual Observatories have been formed in 2000 under the umbrella of the International Virtual Observatory Alliance (IVOA). The VO offers a number of powerful tools to manipulate, visualise and analyse catalogs (Topcat, STILTS, VisIVO), to Data discovery (Aladin, Vizier, etc.) images (Aladin), spectral analysis (VOSpec, SPLAT, etc.) and, of course, to interoperate with the Virtual Observatory archives.

This presentation will address the use of VO tools: Topcat, Aladin, and ViZier, and their use on how to query online data bases and access astronomical data, how to view and carry out analysis on astronomical catalogues, and how to use each of the VO tools together.

Close: Day 1

16:30 (CAT) Tour of SAAO (Optional)

Day 2 (Tuesday: 15 March 2022)

Session 5: Plenary 3 (Science and Outreach)

Zoom Link - https://us06web.zoom.us/j/85122903522?pwd=VGZIVHVRVmNsMm82NVRZcmRHZ2o5QT09

Chair: David Buckley

09:30 - 09:55 (CAT)	Zouhair Benkhaldoun*, Cadi Ayyad University, Oukaimeden Observatory (Morocco) Peering into space with the Morocco Oukaïmeden Observatory
09:55 – 10:20	Lerothodi Leeuw, UWC (South Africa) An Update on the African Cosmology and Astrophysics Strategy
10:20 – 10:45	Carolina Odman, UWC (South Africa) Translating science, people first
10:45 – 11:10	Sonal Asgotraa*, GHE (India) Astrostays: Community-Led Astro-tourism
11:10 – 11:25	Tea Break

Session 6: Parallel Session 1

	Science: Solar physics and planetary science	Outreach: Development and Inclusion
	Zoom Link - https://us06web.zoom.us/j/87398874003?pwd=ejJrQmw5NDVFZmh4L1pFdnAzTIBUQT09	Zoom Link - https://us06web.zoom.us/j/89439976883?pwd=M1ZC UVIZOEx1UTNINVJ1R3NiVUVOdz09
	Chair: Zouhair Benkhaldoun*	Chair: Carolina Odman
11:25 - 11:40 (CAT)	Amina Boulkaboul*, University of Science and Technology Houari Boumediene, Algiers, Centre de Recherche en Astronomie, Astrophysique et Géophysique – CRAAG (Algeria)	Anton Binneman, SARAO (South Africa) A Science communication and engagement framework for astronomy development in rural
	Exoplanets period search in the activity index S and bisector velocity span	communities

	Nicolas Erasmus, SAAO (South Africa)	Ann Njeri*, University of Manchester (UK)
11:40 – 11:55	Observing near-Earth Asteroids with Sutherland Telescopes	Elimisha Msichana Elimisha Jamii na Astronomia (EMEJA) (Kenya)
	Fithanegest Dagnew*, ESSTI/ NASA - CUA (Ethiopia)	Sinenhlanhla Sikhosana, UKZN (South Africa)
11:55 – 12:10	Intercycle and intracycle variation of halo CME rate obtained from SOHO/LASCO observations	Astronomy Education in Rural KZN
	Ahmed Moursi, National research institute of	Sandra Benitex Herrera*, GalileoMobile/Instituto de
12:10 – 12:25	astronomy and geophysics – NRIAG. (Egypt)	Astrofísica de Canarias (Spain)
12.10	A survey of geosynchronous debris within OSTS at NRIAG-Egypt	The Amanar project: A refuge in the stars
	Postria Villograph Mardita (Swadon)	Doreen Agabe*, Space technology Agency Ltd
12:25 – 12:40	Beatriz Villarroel*, Nordita (Sweden)	(Uganda)
12.20 - 12.40	The VASCO project – a 2022 update	Astronomy Outreach at Space Technology Agency,
	2322 иришто	Uganda
12:40 - 13:40	Lunch Break	

Session 7: Parallel Session 2

	Science Stellar Astronomy	Outreach Education and HCD - 1
	Zoom Link - https://us06web.zoom.us/j/89787302481?pwd=c21sdF MxNHNLNU1QNIF6eWR0MDBMUT09 Chair: Edward Jurua	Zoom Link - https://us06web.zoom.us/j/89721363974?pwd=RFFmN nNUalRZb0pBZjM0aWNKY3haQT09 Chair: Jamal Mimouni
	Chair. Lawara Saraa	Jack Radcliffe*, University of Pretoria – UP (South
13:40 – 13:55 (CAT)	Zoubida Ahmane*, Batna 1 University Algeria (Algeria) Simulations of protostar-driven photoionization in Herbig-Haro Jets	Africa) Teaching radio interferometry to the next generation of African astronomers

13:55 – 14:10	Naomi Asabre Frimpong*, Ghana Space Science and Technology Institute/ Ghana Radio Astronomy Observatory (Ghana) Probing the Evolution of High Mass Protostars: Comparing methanol and methyl cyanide in Massive star forming regions	Melvin Hoare*, University of Leeds (UK) The DARA Project
14:10 – 14:25	Willice Obonyo*, Technical University of Kenya (Kenya) Radio properties of massive protostars in the MeerKAT galactic plane survey	Bonaventure Okere*, Centre for Basic Science (Nigeria) Building a critical Mass of Astronomers in Africa: The PASEA Experience
14:25 – 14:40	Mavis Seidu*, NWU (South Africa) (2021 AfAS Early Career Research grant recipient) UC HII regions towards class II methanol masers	Nnaemeka Onyeuwaoma*, Center for Basic Space Science (Nigeria) Center for Basic Space Science and Astronomy: A Rendezvous for Astronomy and Space Science Research in Nigeria
14:40 – 14:55	Abdelmajid Benhida, Cadi Ayyad University (Morocco) Observational study of RR lyr and R Sct variable stars at Oukaimeden observatory in Morocco	Prospery Simpemba*, Copperbelt University / SAROAD (Zambia) Regional Master of Science in astronomy and astrophysics
14:55 – 15:10	Tea Break	

Session 8: Parallel Session 3

Science Stellar astronomy	Outreach Education and HCD - 2
Zoom Link - https://us06web.zoom.us/j/82805041893?pwd=TEgyU WhISGZBaWNsVnAwVIIPakVZUT09	Zoom Link - https://us06web.zoom.us/j/85763023313?pwd=czFVL 3pNOW5aQzhxVzh2L1VxbTh5Zz09
Chair: Donald W. Kurtz	Chair: Niruj Ramanujam*

15:10 – 15:25 (CAT)	Chukwujekwu Ofodum*, Centre for Basic Space Science, Nsukka Nigeria. On the observed new oscillation and amplitude modulations in a roAp star: HD 217522	Zara Randriamanakoto, SAAO/Malagasy Astronomy & Space Science (South Africa & Madagascar) Advancing Astronomy in Madagascar
15:25 – 15:40	Benard Nsamba, Kyambogo University (Uganda) and Max Planck Institute for Astrophysics (Germany) Stellar oscillations: path to stellar interior physics	Edward Jurua, Mbarara University of Science and Technology (Uganda) Building Human Capacity From Scratch
15:40 – 15:55	Thebe Medupe, NWU (South Africa) Photometry of HD 68695, a young Herbig A starusing Mahikeng Telescope	Tolu Biressa, Jimma University (Ethiopia) A Platform of collaboration for research and education across Africa
15:55 – 16:10	Oyirwoth Patrick Abedigamba*, Kyambogo University (Uganda) Gaia and Kepler observations of KIC 8263801	Linda Strubbe*, Pan-African School for Emerging Astronomers, Strubbe Educational Consulting (US, UK, Belgium) Teaching your best in your university astronomy classroom (or online!), using principles from education research

Session 9: Special Session 1

APA

Zoom Link - https://us06web.zoom.us/j/88972311154?pwd=bkxaUmppNzVXK1FsZFAzZDZRNjIIUT09

		Special Session 1: The African Planetarium Association - building a planetaria community across Africa
16:10 - 17:10 (CAT)	Abstract: In this session, the APA would like to foster the discussion around the needs of the existing planetaria	
	16.10 = 17.10 (CAT)	community in Africa and how we can foster its growth in terms of skills development, planetaria
	construction/acquisition and African based planetaria contents creation.	

Close: Day 2

Day 3 (Wednesday: 16 March 2022)

Session 10: Plenary 4 (Science and Outreach)

Zoom Link - https://us06web.zoom.us/j/86969254409?pwd=ZVFIWjEzSTRIRUNENXNNbUVuMVpBUT09

Chair: Niruj Ramanujam*

09:30 - 09:55 (CAT)	Kenda Knowles, Rhodes University (South Africa) Viewing Clusters with MeerKAT	
09:55 – 10:20	Unathi Kondile, African Science Stars Awareness Publication – ASSAP (South Africa) Boosting African Astronomy in the Media	
10:20 – 10:45	Maram KAIRE*, (Senegal) - The talk will be in both French and English L'ASTRONOMIE AFRIQUE: premier webzine francophone du continent a Africain/ the first French-speaking webzine of the African continent	
10:45 – 11:00	Tea Break	

Session 11: Parallel Session 4

	Science Stellar Astronomy	Outreach Advanced public astronomy
	Zoom Link - https://us06web.zoom.us/j/81204967051?pwd=bTd5Qz dxSG5MMitXNFRLWGJGQ29Ddz09	Zoom Link - https://us06web.zoom.us/j/82429857416?pwd=QVovN GR6Q2NUUno4TWszdjg2N0daQT09
	Chair: Michelle Lochner	Chair: Salma Sylla
11:00 - 11:15 (CAT)	Seblu Humne Negu*, ESSTI (Ethiopia)	Djounai Baba Aissa* , Center of Research in Astronomy, Astrophysics and Geophysics (Algeria)
	Angular Momentum evolution of W UMa Contact binaries	Participative astronomy network experience in observing asteroidal occultation in Algeria
11:15 – 11:30	Grace Katusiime*, Mbarara University of Science and Technology (Uganda)	Khaoula Laggoune*, Saleh Boubnider University, Constantine & Sirius Astronomy Association (Algeria)

	New ideas from old friends: revisting XTE J1118+480 and XTE J 1550-564	VASCO for Kids project: citizen science with a special twist (VT)
11:30 – 11:45	Brian van Soelen*, University of the Free State – UFS (South Africa)	Zouhair Benkhaldun*, Cadi Ayyad University, Oukaimeden Observatory (Morocco)
	Updated binary solution for 1FGL J1018.6–5856 and the implications for gamma-ray production	Pro-Am cooperation in Morocco: launch of a promising momentum (VT)
11:45 – 12:00	Christo Venter*, NWU (South Africa) A (South) African contribution to global pulsar	Salma Sylla, University of Cheikh Anta Diop (Senegal) Monitoring impact flashes on Jupiter with small
12:00 – 13:00	science Lunch Break	telescopes

Session 12: Parallel Session 5

	Science Stellar astronomy	Outreach Advanced public astronomy
	Zoom Link - https://us06web.zoom.us/j/86082983697?pwd=dWVsZ XBFUXRTdG1XaC9pajllUTRmdz09	Zoom Link - https://us06web.zoom.us/j/87631067354?pwd=ME1aTX VkNzJpUi9UOTd6RmovSnpsdz09
	Chair: Rene Kraan-Korteweg	Chair: Mirjana Povic
13:00 – 13:15 (CAT)	Marisa Geyer, SARAO (South Africa) Weighing pulsars with the MeerKAT scale and finding their companions fall short	Nikhita Madhanpall, IAU-OAD (South Africa) Data Science Exposure through Hackathons
13:15 – 13:30	Itumeleng Monageng, SAAO (South Africa) Disentangling the neighboring SMC pulsars, SXP 15.3 and SXP 305	Ingrid Schöfmann, Karoo Development Foundation (South Africa) "Keep Looking Up" - A Journey to Joy through Rural Community based Astro-tourism in the Northern Cape
13:30 – 13:45	Anke van Dyk, SAAO – UCT (South Africa)	Exodus Chun-Long Sit*, International Transmedia Astronomer (Hong Kong, China)

	Radio and optical observations of the supernova remnant around SXP1062	Dark Sky Protection Without Borders
13:45 – 14:00	Otto Trust, Mbarara University of Science and Technology (Uganda) (2021 AfAS Early Career Research grant recipient) High-resolution spectroscopic and photometric characterisation of TIC 298969563	Daniel Cunnama, SAAO, South Africa The Cosmic Savannah: Bringing African astronomy to the forefront
14:00 – 14:15	Tea Break	

Session 13: Parallel Session 6

	Science Galactic and extragalactic astronomy Zoom Link -	Outreach Stellarium and other tools: tutorial Zoom Link - https://us06web.zoom.us/j/86751031589?pwd=SmtMZ
	https://us06web.zoom.us/j/84959651728?pwd=UGhtbk ZLSCtPb1VibExBeHNMenAvQT09	UM1dmV6RS9QT0xaNS9DQnJnZz09 Facilitators: Sarah Abotsi-Masters*, Khadija El
	Chair: Zara Randriamanakoto	Bouchefry*, Vassilios Spathopoulos*
	James Chibueze, NWU (South Africa)	Stellarium is a free open-source planetarium software for simulating the celestial sphere at a given time and
14:15 – 14:30 (CAT)	MeerKAT, e-MERLIN, H.E.S.S. and Swift search for persistent and transient emission associated with three localised FRBs	location. During this session, the 3 facilitators will explain and
14:30 – 14:45	Miora Rakototafika*, University of Antananarivo (Madagascar)	then demonstrate various features of Stellarium and how it can be used as an innovative pedagogical tool in education and outreach.
	Young massive clusters properties in the collisional ring galaxy Arp 147	Some features that will be demonstrated include:
14:45 – 15:00	Mirjana Povic, ESSTI (Ethiopia); IAA(Spain)	 Basic features and operations of Stellarium The range of Astronomical phenomena that can
	Green valley galaxies: the current status in the field	be viewed using Stellarium

15:00 – 15:15	Ifeanyi Nwankwo*, Abia State University (Nigeria) On the possibility of evolution in Seyfert galaxies	 Galactic and planetary coordinates and magnitudes Movement of celestial objects throughout the night and the year Moon phases, plus lunar orientation from different latitudes Changes in sunrise and sunset positions, and altitude of the Sun throughout the year Retrograde motion of planets It will also be demonstrated how Stellarium can become a tool for interdisciplinary teaching, combining astronomy with history and cultural studies by simulating historical astronomical measurements and observations from various ancient civilisations in the Stellarium environment.
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Session 14: Special Session 2 IAU General Assembly 2024 in Cape Town: Gearing up for the GA in 2024 Convener: IAU GA NOC

Zoom Link - https://us06web.zoom.us/j/84607503107?pwd=anFKMGJHNWw0L095RERnRnUxVUwzUT09

Abstract: The special session builds on the progress made at the Forum on Astronomy in Africa in Octorit will include:		
15:15 – 16:15 (CAT)	 follow up on the activities included in the most recent version of the Astronomy 2024 Vision document (www.astronomy2024.org) updates from the subcommittees of the GA2024 national organising team (science; education, communications and outreach; fundraising; Africa) the launch of a call for funding astronomy centres across the continent in the lead up to GA2024 	

The programme is as follows:
15:15 Welcome & overview 15:25 Update from Science Committee 15:30 Update from Africa Committee 15:35 Update from Outreach Committee 15:40 Call for proposals to implement Vision 2024 15:50 Discussion 16:10 Meeting summary 16:15 Close

	Iziko Planetarium		
	Planetarium Shows:		
17:00 – 19:00 (CAT)	- Rising Star - Sida Tsoatsoas		

Day 4 (Thursday: 17 March 2022)

Session 15: Plenary 5 (Science and Outreach)

Zoom Link - https://us06web.zoom.us/j/89103778394?pwd=ZWJrallVdnAya0JPR0dmNjFJYThIUT09

Chair: Mirjana Povic

\blacksquare 110.311 \blacksquare 110.22 11 \triangle 11	Renee Kraan-Korteweg, UCT (South Africa) What can MeerKAT tell us about galaxy overdensities hidden behind the Milky Way
09:55 – 10:20	Marie Korsaga*, ObAS – Strasbourg (France) The Cold Baryons to Halo Mass Relation of galaxies
10:20 – 10:25	Break to parallel sessions

Session 16: Parallel Session 7

	Science Galactic and extragalactic astronomy Zoom Link -	Outreach Opportunities for pan-African collaboration in astronomy education (a NAEC Africa panel discussion)
	https://us06web.zoom.us/j/83494553647?pwd=TVNYbW VaREdtaVU5YVgwY2d2YnR5dz09 Chair: James Chibueze	Zoom Link - https://us06web.zoom.us/j/85945581449?pwd=ZkJ4N k4wMmZYaS94eHIIVzFBRFVtZz09
		Chair: Sally Macfarlane & Sarah Abotsi-Masters*
	Evaristus lyida*, University of Nigeria (Nigeria)	Abstract:
10:25 - 10:40 (CAT)	On the Evolution of Seyfert galaxies, BL Lacertae objects and Flat-spectrum radio quasars	During this session, various education professionals and National Astronomy Education Coordinators
10:40 – 10:55	Bhuti Nkosi, University of the Witwatersrand (South Africa)	(NAECs, an initiative of the IAU OAE) from around Africa will discuss the potential for sustainable pan-African projects and opportunities in the lead up to, during and after the IAU GA 2024. A panel of
10.40 - 10.33	Observability of neutrinos from quiescent blazars with KM3NeT	African NAECs will briefly discuss examples of projects from their home countries, including lessons learnt, successes and challenges, and the potential for

10:55 – 11:10	Izak van der Westhuizen*, UFS (South Africa) Modelling the synchrotron self-absorption from RMHD simulations of relativistic jets using PLUTO Lagrangian particle module	pan-African implementation. The main aims of this session are to start building effective communication channels among the NAECs and education professionals across Africa, and to establish a plan of action going forward.
11:10 – 11:25	Tombo Fitahiana Rarivoarinoro*, University of Antananarivo (Madagascar) MIGHTEE: revealing the radio properties of J0224.2-0528, a 1.7 Mpc giant radio galaxy in the XMM-LSS Early Science field	action going forward.
11:25 – 11:40	Eugene Idogbe*, Centre for Basic Space Science- National Space Research and Development Agency (Nigeria) Photometric Study of M51 group of galaxies	
11:40 – 11:50	Tea Break	

Session 17: Parallel Session 8

	Science Galactic and extragalactic astronomy	Science Instrumentation and data
	Zoom Link - https://us06web.zoom.us/j/88297208216?pwd=U25hcW xOcFU0VEVXUWZJU2xLTnNwUT09	Zoom Link - https://us06web.zoom.us/j/81692879282?pwd=dzluUnNzTVRwc2E1VHBPRGIXeU80QT09
	Chair: Brenda Namumba*	Chair: Somaya Saad*
11:50 – 12:05 (CAT)	Ed Elson, UWC (South Africa) MeerKAT HI line observations of the nearby galaxy	Encarni Romero Colmenero*, SAAO/SALT (South Africa)
	pair NGC 1512/1510	Updates on SALT
12:05 – 12:20	Zara Randriamanakoto, SAAO (South Africa)	Elizabeth Naluminsa*, SAAO (South Africa)
	Young massive clusters and star-forming clumps in a sample of nearby interacting systems	The SALT RSS Fabry-Pérot

12:20 – 12:35	Ann Njeri*, University of Manchester (UK) VLBI Observation of the Faint (microJansky)	Brandon Engelbrecht*, UWC (South Africa) Satellite contamination on MeerKAT HI IM
	Extragalactic Radio Sources - The Widefield VLBA & EVN GOODS-N and SPARCS-N 1.4 GHz Surveys	
	Science Cosmology Chair: Brenda Namumba*	
	Feraol Fana Dirirsa, ESSTI (Ethiopia)	Paul Fallon*, UNISA (South Africa)
12:35 – 12:50	Constrain cosmological parameters using phenomenological relation of GRB prompt emission with a large data set	Point source C-Band Mueller Matrices for the Green Bank Telescope
	Ayodeji Ibitoye, UKZN (South Africa)	Ntsikelelo Charles, Rhodes University (South Africa)
12:50 – 13:05	Large scale structure cross-correlation of the Universe	Simulations of primary beam effects on the cosmic bispectrum phase observed with the Hydrogen Epoch of Reionization Array
13:05 – 14:05	Lunch Break	

Session 18: Parallel Session 9

	Science Cosmology	Science Instrumentation and data
	Zoom Link - https://us06web.zoom.us/j/81199190229?pwd=dS9tQk oxbWJUckh3QzRKa3d6MGN0UT09	Zoom Link - https://us06web.zoom.us/j/88045811772?pwd=dkxkM https://us06web.zoom.us/j/88045811772?pwd=dkxkM https://us06web.zoom.us/j/88045811772?pwd=dkxkM https://us06web.zoom.us/j/88045811772?pwd=dkxkM https://us06web.zoom.us/j/88045811772?pwd=dkxkM
	Chair: Geoff Beck*	Chair: Sinenhlanhla Precious Sikhosana
	Liantsoa Finaritra Randrianjanahary, UWC (South Africa)	Attih Joshua, University of Ghana (Ghana)
14:05 – 14:20 (CAT)	Cosmological constraints with HI Intensity Mapping using MeerKAT	Fourier Synthesis Imaging to KAT-7 Response to Radio Waves via Simulation

	Science	Science
	Cosmology	Lightning talks
	Chair: Geoff Beck*	Chair: Sinenhlanhla Precious Sikhosana
14:20 – 14:35	Alvine Kamaha*, University of California (USA) The Quest for Dark Matter With LUX-ZEPLIN	3 min recorded talks Youssef Moulane
14:35 – 14:50	Rahul Kothari*, UWC (South Africa) Superhorizon Perturbations: A Possible Explanation of the HubbleLemaitre Tension and the Large Scale Anisotropy of the Universe	Monitoring the comets activity with TRAPPIST telescope at Oukaimeden Observatory Abubakar Sani Idris A study of the lightcurve photometry of some
14:50 – 15:05	Shambel Sahlu*, Entoto Observatory and Research Center (Ethiopia) Confronting the Chaplygin gas with data: background and perturbed cosmic dynamics	Djounai Baba Aissa The importance of the study and observation of stellar occultation by Near-Earth Asteroids Tesfaye Muhie RRL stars PLM and kinematics calibration using statical parallax Getachew Mengistie Asteroseismology: Seeing with Sound Gemechu Kumssa Entropy of turbulent-gravitating molecular cloud collapse Alemiye Mamo Yacob A Search for Period change of AHB stars Mohammed Akram Zermane New study of the nuclear reaction12C(alpha,gamma) 16O Doris Atino

Sylvia Ramaite Phogole Spectroscopy with eShel spectrograph on Mahikeng telescope Sriram Sankar **Understanding the Baryon Cycle** Timothy Chukwudiegwu Egbuim Erythemal UV Radiation Across Nigeria: where do we stand? Youssef Errazzouki Single Star Scidar: Optical turbulence profiling-Simulations 2021 AfAS Early Career Research grant recipients: Ndiyavala-David Hambe Modelling globular clusters as multiwavelength emitters Ambrose Eze Accretion flow and mass accretion rates/fluctuations in a Blackhole candidate 15:05 - 15:15 Tea break

Session 19: Special Session 1
Current status of AfNWA after one year since its official launching
Convener: Mirjana Povic

Zoom Link - https://us06web.zoom.us/j/81741596695?pwd=MUNqUVZhNmVtZDQxS0xlVzlDR09SZz09

15:15 – 16:15 (CAT) **Abstract:**

The African Network of Women in Astronomy (AfNWA) is an initiative that aims to connect women working in astronomy and related fields in Africa. Astronomy and space sciences are currently experiencing significant growth in Africa. With the AfNWA initiative, we would like to guarantee female participation at all levels of these new and important developments for the benefit of all our society. Our main objectives are to improve the status of women in science in Africa and use astronomy to inspire more girls to do STEM (Science, Technology, Engineering, and Mathematics), so that in the long-term they can impact societies through their presence and their vision, for the benefit of all. AfNWA was established in September 2020 as one of the committees under AfAS and publicly launched in January 2021. By now, we have more than 100 members in the Network from more than 30 countries, where ~ 80% are women and ~ 20% are men. During this first year, we organised several virtual trainings and public talks, presented AfNWA at different meetings, organised several sessions on the international level about women in science, initiated AfNWA awards for early and senior female astronomers started with outreach activities to inspire more young girls and boys to do science, etc. This talk will summarise in more detail where we are after one year and where we want to go in the next year.

Conference Dinner	
19:00 – 22:30 (CAT)	Baia Restaurant Hosted by the Department of Science and Innovation (DSI) – South Africa

Day 5 (Friday: 18 March 2022)

AfAS General Assembly: Lerothodi Leeuw

09:30 - 09:35 (CAT)	Welcome and Opening of the General Assembly Meeting (Jamal Mimouni)	
09:35 – 09:40	Adoption of Draft Agenda	
09:40 – 09:55	Report of the President / Achievements 2019 – 2022 (Jamal Mimouni)	
09:55 – 10:05	Report from the Head of Secretariat (Charles Takalana)	
10:05 – 10:15	Financial Report (Yunus Manjoo)	
10:15 – 10:25	AfAS membership updates – Admission of members, fees, and benefits (Sarah Abotsi-Masters*)	
10:25 – 10:45	Q&A	
10:45 – 11:00	Tea break	
	Chair: Jamal Mimouni	
11:00 – 11:10	Science (David Buckley)	
11:10 – 11:20	Outreach and Education (Niruj Ramanujam)	
11:20 – 11:30	Communications (Thembela Mantungwa)	
11:30 – 11:40	African Network for Women in Astronomy (AfNWA) - Mirjana Pović	
11:40 – 11:50	African Science Stars Astronomy Publication (ASSAP) - Madambi Rambuda	
11:50 – 12:00	Africa-Europe Science Collaboration Astronomy Platform (AERAP) – Declan Kirrane	
12:00 – 12:10	African Planetarium Association (APA) – Susan Murabana Owen*	
12:10 – 12:30	Q&A	
12:30 – 13:00	Lunch	
	Chair: Sarah Abotsi-Masters	
13:00 – 13:20	Amendments to AfAS Constitution (Yunus Manjoo/Charles Takalana)	
13:20 – 13:35	Report from ExCo Nominations Committee, presentation of Nominee list, and election process	
15.20 - 15.55	(Representative of the Nominations Committee)	
	Voting for Seven members of the EC and confirmation of results	
13:35 – 15:35	Announcement of Elected EC members	
	Voting for President and Vice President of the EC and confirmation of results	
	Announcement of Elected President and Vice President	
15:35 - 15:45	Inaugural address by newly elected President	
	Announcements (Kevin Govender)	
15:45 – 15:50	- Offers to host the AfAS-2024 Annual conference	
	- Offers to host the AfAS-2025 Annual Conference and General Assembly	
15:55 – 16:00	Vote of thanks (Takalani Nemaungani)	