

NEWSLETTER

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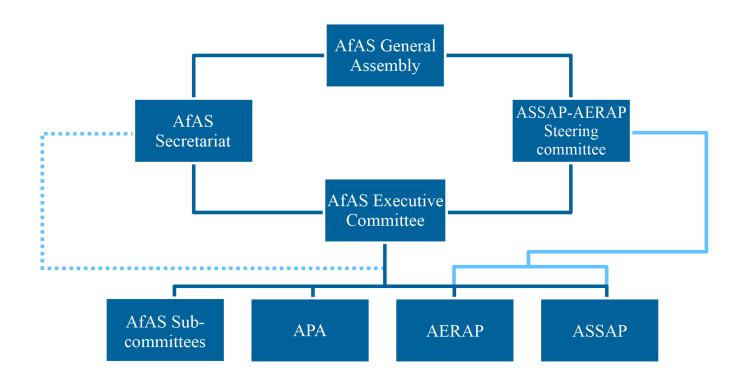
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About AfAS

The African Astronomical Society (AfAS) is a Pan-African Professional Society of Astronomers, registered in South Africa, as a non-profit, voluntary society. Our vision is to create and support a globally competitive and collaborative astronomy community in Africa. Our mission is to be the voice of astronomy in Africa and to contribute to addressing the challenges faced by Africa through the promotion and advancement of astronomy. Our key objective is to develop Astronomy and Human Capacity throughout the continent of Africa through a vibrant and active AfAS. South Africa currently hosts the Secretariat of AfAS through the Department of Science, Technology and Innovation (DSTI), and our office is located at the South African Astronomical Observatory (SAAO) in Cape Town.



Our Brief History

At the 2010 launch of the African Physical Society in Dakar, astronomers from across the continent and the African diaspora resolved to form the African Astronomical Society (AfAS). Following this meeting, a whitepaper on the formation and structure of the AfAS was drafted and disseminated. An Interim Working Group was formed to conduct the formation of the AfAS at the International Astronomical Union (IAU) Symposium in Ouagadougou. The initial Constitution of the AfAS was agreed to and signed by the members of the Interim Working Group at Ouagadougou, Burkina Faso, on 16 December 2010. The interim Working Group consisted of members from Algeria, Burkina Faso, Cameroon, Ethiopia, Gabon, Ghana, Kenya, Mauritius, Morocco, Nigeria, South Africa, Uganda, and the U.S.A. AfAS was officially launched at the 2nd Middle East and Africa Regional IAU Meeting in Cape Town, South Africa, in April 2011. However, AfAS had not been an active organization since its inception in 2017, and at the 4th Middle East and Africa Meeting in Ethiopia, it was decided to bring together stakeholders and relaunch AfAS. In March 2019, the Astronomy in Africa meeting was held for this purpose at the SAAO in Cape Town, South Africa. At that meeting, a revised Constitution was approved and accepted by the delegates. The AfAS Secretariat was incubated by the DSI from April 2019 to March 2020 and has been fully operational since April 2020.

Message from the President



It is with great humility and a deep sense of responsibility that I write this foreword as the incoming President of the African Astronomical Society (AfAS). We find ourselves at an exciting juncture, a moment to celebrate how far we have come and to look forward with intention and clarity to the work that lies ahead.

The AfAS2025 annual conference, graciously hosted by the University of South Africa (UNISA) in Johannesburg this past March, was a powerful testament to the momentum of African astronomy. It brought together scientists, students, educators, outreach practitioners and enthusiasts from across the continent and beyond to exchange knowledge, spark new collaborations, and reaffirm our shared commitment to growing astronomy in service of science, society, and development. I extend my heartfelt thanks to UNISA, the local organising team, and all participants whose energy and contributions made the conference such a vibrant success.

As we look ahead, we are already turning our attention to AfAS2026, which will take place in Kasane, Botswana, hosted by the Botswana In-

ternational University of Science and Technology (BIUST). This promises to be another landmark gathering that continues our commitment to rotating our flagship events across the continent, strengthening regional networks, and showcasing the unique contributions of each host country to the African astronomical landscape.

In the coming months, we are also preparing for AfAS's participation in the European Astronomical Society (EAS) annual meeting in Cork, Ireland, where we will engage with global partners, present African-led science, and explore deeper collaborations with sister organisations across Africa and beyond. Strengthening such partnerships remains a strategic priority, as we recognise that the advancement of astronomy in Africa is inseparable from our collective efforts—regional and international.

AfAS's work continues to be made possible by the unwavering support of our funders and frequent partners. We gratefully acknowledge the South African Department of Science, Technology and Innovation (DSTI), the National Research Foundation (NRF), the South African Radio Astronomy Observatory (SARAO), the Square Kilometre Array Observatory (SKAO), the International Astronomical Union- Office of Astronomy for Development (IAU-OAD), the Development in Africa with Radio Astronomy (DARA), and numerous others who share our vision and stand beside us in our mission.

This special conference edition of the newsletter captures not only the highlights of AfAS2025, but also the spirit of a growing community—ambitious, collaborative, and grounded in a Pan-African vision. I hope these pages inspire you, as they do me, to remain engaged, hopeful, and bold in our pursuit of science and unity.

With sincere appreciation and warm regards,

Amare Abebe

President, African Astronomical Society (AfAS)

Update from the acting Executive Officer



We began 2025 with renewed energy and a shared sense of purpose as the African Astronomical Society (AfAS) hosted its General Assembly and annual conference from 23 to 28 March. This year's gathering was held at the University of South Africa (UNISA) and Emperors Palace in Gauteng, and was enriched by several dynamic side events—including the AfAS-2025 Data Science Hackathon, the African Planetarium Association (APA) Biannual Workshop, and BLUEshift Africa: Workshop on Teaching Undergraduate Astronomy.

This annual convergence once again united our vibrant and growing community from across Africa, as well as partners and collaborators from around the world. It provided a valuable space to reflect on our progress, share groundbreaking research, highlight efforts in outreach and education, and collectively continue shaping the future of astronomy on the continent.

We extend our heartfelt thanks to UNISA for graciously hosting the conference and to all our sponsors and partners for their invaluable support. A significant milestone of this year's Assembly was the election of a new executive committee (ExCo), who have been entrusted with guiding AfAS into its next chapter. Their term will run until the next general assembly, and we are already engaging with the newly elected team to set strategic priorities and continue our mission. In that spirit, we have also begun early discussions with our next conference host, the Botswana International University of Science and Technology (BIUST), as we look forward with great anticipation to the 2026 conference.

Our focus now turns to reconstituting and revitalizing AfAS committees—an essential part of strengthening the society and building on the solid foundations laid by the previous leadership and committee members. We are excited to welcome new committee chairs and to foster collaborations with programs such as the Pan-African Citizen Science e-Lab (PACS e-Lab) and Astrolabs. The PACS eLab is a nonprofit organization dedicated to advancing STEM education across Africa through hands-on engagement in astronomy and space science. With a strong focus on reaching underrepresented communities, PACS e-Lab inspires young individuals to pursue careers in STEM by providing meaningful learning experiences and entry points into scientific research. Whereas, the Astrolab program is an enquiry-based lab developed by Jean-Pierre De Greve (Vrije Universiteit Brussel, Belgium) and Michèle Gerbaldi (Institut d'Astrophysique de Paris, France) in 2013, with the support of the International Astronomical Union- Office of Astronomy for Development (IAU-OAD).

We were also pleased to announce the appointment of Dr. Meryem Guennoun as the new Executive Officer of AfAS. This announcement was made during the AfAS2025 conference and general assembly. While Dr. Meryem Guenniun completes the necessary administrative processes before officially assuming her role, I will continue to serve in an acting capacity. In this transitional period, I remain committed to supporting the society and promoting equitable access to resources, education, and research opportunities throughout Africa.

Looking ahead, we are inspired by the momentum and dedication of our community. With a newly elected executive committee, a dedicated Secretariat, and our ever-growing network of collaborators, AfAS is poised to grow stronger and reach further, expanding the frontiers of astronomy in Africa and amplifying the continent's contribution to global scientific advancement.

Nombali Qodi

Acting Executive Officer

African Astronomical Society (AfAS)

AfAS Achievements: Celebrating Progress and Building a Bright Future for African Astronomy

By Naomi Asabre Frimpong

Over the past three years, the African Astronomical Society (AfAS) has made significant strides in advancing African astronomy, both on the African continent and the global stage. The Society has hosted key events and expanded international partnerships with other Astronomical Societies. AfAS during these past 3 years has solidified its position as an essential player in the global astronomical community, and the future looks even brighter.

Key Milestones

1. Hosting IAUGA2024

AfAS played a central role in managing the operational and business aspects of the International Astronomical Union General Assembly (IAU GA) in 2024. Through travel grants, we supported the participation of over 800 African delegates, including 200+ from other African countries. This landmark event was an opportunity for African astronomers to showcase their research and engage with global peers. Additionally, AfAS organised all outreach activities, further amplifying our presence.

2. Expanding AfAS' Presence

AfAS earned a 3-year observer status with the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), enhancing its influence in global astronomical organizations. This recognition highlights our growing importance in the international scientific community.

3. AfAS Conference Breakthrough

For the first time in AfAS history, the conference was held outside South Africa, hosted in Morocco. This marked a new milestone in regional collaboration and underscored our commitment to fostering African astronomy across the continent. The event also strengthened our partnerships with the American Astronomical Society (AAS) and the European Astronomical Society (EAS), furthering our global connections.

Governance and Strategic Growth

1. Constitution Review

AfAS undertook a significant review of its constitution, which was led by Prof. Patricia Whitelock. The revised version, now endorsed by the executive committee, is set for approval at the general assembly, laying the groundwork for a more transparent and sustainable future.

2. Strengthening Institutional Ties

AfAS formalized its agreement with the Square Kilometre Array Observatory (SKAO) to implement the African Strategy, ensuring African astronomers have access to cutting-edge resources. Additionally, SKAO became an annual sponsor of the AfAS conference, and we renewed our contract with the South African Department of Science, Technology and Innovation (DSTI) for another six years.

Supporting Education and Nurturing Talent

1. Educational Programs

AfAS funded two key educational initiatives: the Pan-African School Emerging Astronomers Program and the Botswana Astronomy School. These programs have been instrumental in providing young astronomers with opportunities to further their studies and careers.

2. AfAS Astronomy Schools

AfAS has laid the groundwork for a network of astronomy schools across Africa, with plans to expand this initiative through active fundraising. This framework will provide young African astronomers with the tools and knowledge needed to excel.

3. Seed Grants

AfAS awarded MSc and PhD seed grants to promising young researchers, helping to culti-

vate new talent in the field. These efforts align with our ongoing support for diversity and inclusion, including contributions to the African Network of Women Astronomers (AfNWA) Award.

Global Partnerships

AfAS has formed a valuable partnership with Breakthrough Listen, expanding opportunities for African astronomers to collaborate internationally. Our growing ties with the American Astronomical Society (AAS) and European Astronomical Society (EAS) further solidify our commitment to global collaboration and the advancement of African astronomy.

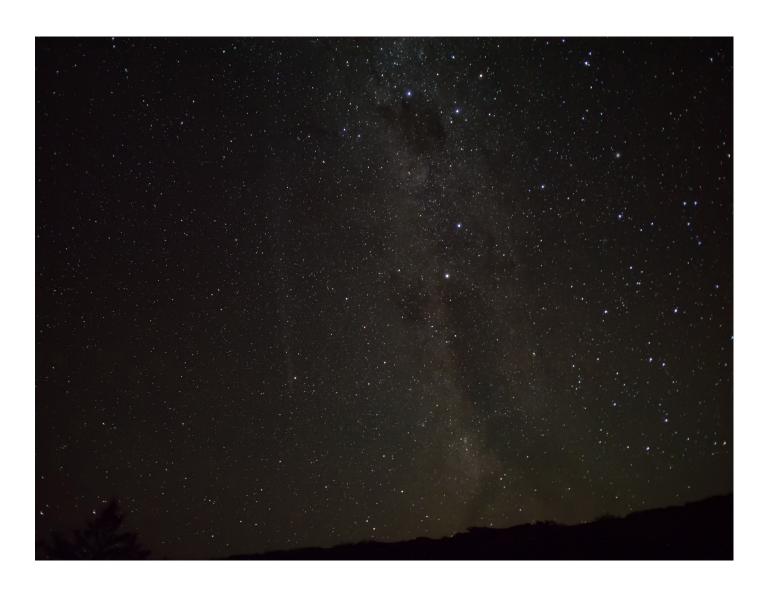
Leadership Development

In a significant leadership transition, Dr. Meryem Guennoun was appointed Head of Secretar-

iat designate. This ensures AfAS's continued growth under strong and visionary leadership.

Looking Ahead

The next few years hold great promise for AfAS. By continuing to foster education, expand partnerships, and strengthen governance, AfAS will remain at the forefront of advancing African astronomy. Together, we will build on our achievements, ensuring a bright and dynamic future for African astronomy. The best is yet to come.



Reflecting on AfAS 2025: A triumph of African Astronomy and UNISA's commitment to the stars

By Prof Melusi Khumalo

Chair, Local Organizing Committee AfAS Conference 2025 University of South Africa (UNISA)

From March 23rd to 28th, 2025, the African Astronomical Society (AfAS) conference was proudly hosted by the University of South Africa (UNISA), marking an extraordinary chapter in the African continent's journey towards the stars. As the chair of the Local Organizing Committee, I have the distinct honour and privilege of reflecting on this pivotal event, which brought together researchers, students, policymakers, educators, and industry stakeholders under one unifying celestial canopy.

A Celebration of African Excellence in Astronomy

AfAS 2025 was more than a conference—it was a celebration of African excellence, innovation, and collaboration in astronomy. Over 400 delegates from across Africa and the global scientific community participated in this year's conference in person and online. Through plenaries, parallel sessions, exhibitions, and public outreach events, we explored not only the cosmos but also the transformative role that astronomy can play in development, education, and continental integration.

Highlights of the scientific programme included keynotes from renowned astrophysicists, presentations on cutting-edge research in radio astronomy, cosmology, and data science. Special focus was also given to the Square Kilometre Array (SKA) and Africa's leadership in radio astronomy, as well as discussions on inclusive science education and capacity building across underserved communities.

The University of South Africa: A Vision Aligned with the Stars

As Africa's largest open distance learning institution, UNISA is deeply committed to democra-

tizing access to quality education and fostering scientific inquiry that addresses societal challenges. Hosting the AfAS conference was a natural extension of our institutional vision: to be a leading light in research, innovation, and engagement, both locally and globally.

Our role in AfAS 2025 was grounded in this commitment. From logistical coordination to intellectual contributions, UNISA academics and students were deeply embedded in all aspects of the conference. We hosted sessions on curriculum development in astronomy education, data literacy, and indigenous knowledge systems in astronomy—an area of growing interest where African heritage offers unique insights into humanity's shared curiosity about the skies. The participation and support of our Vice Chancellor, Prof Puleng LenkaBula, and our Executive Dean, Prof Bhekie Mamba, provided us with the confidence that we had the moral and material support of university management.

Collaboration and Opportunity: A Forward-Looking Agenda

AfAS 2025 has left us with a powerful message: that Africa's future in astronomy is not only bright but essential to global scientific advancement. The momentum generated by the conference has opened new pathways for collaboration across institutions and nations. As part of our post-conference strategic vision, UNISA is exploring the following opportunities:

- 1. **Expanded Research Partnerships**: Leveraging our relationships with regional universities, we aim to develop joint research programs in astrophysics, data science, and satellite engineering.
- 2. **Open Education Initiatives**: UNISA is committed to creating more accessible astronomy and space science courses through open educational resources and online platforms, enabling wider participation in astronomy education.
- 3. Youth Engagement and Outreach: Recog-

nizing the need to cultivate the next generation of African astronomers, we plan to scale up outreach programs in rural schools, and support internships and mentorship opportunities for undergraduates.

- 4. **Policy and Advocacy**: With growing interest in space policy, we see a role for UNISA in convening interdisciplinary forums to inform national and continental policy on space science and technology.
- 5. Sustainable Development through Astronomy: UNISA will continue advocating for the integration of astronomy in broader development agendas, particularly in alignment with the African Union's Agenda 2063 and the United Nations' Sustainable Development Goals.

A Note of Gratitude

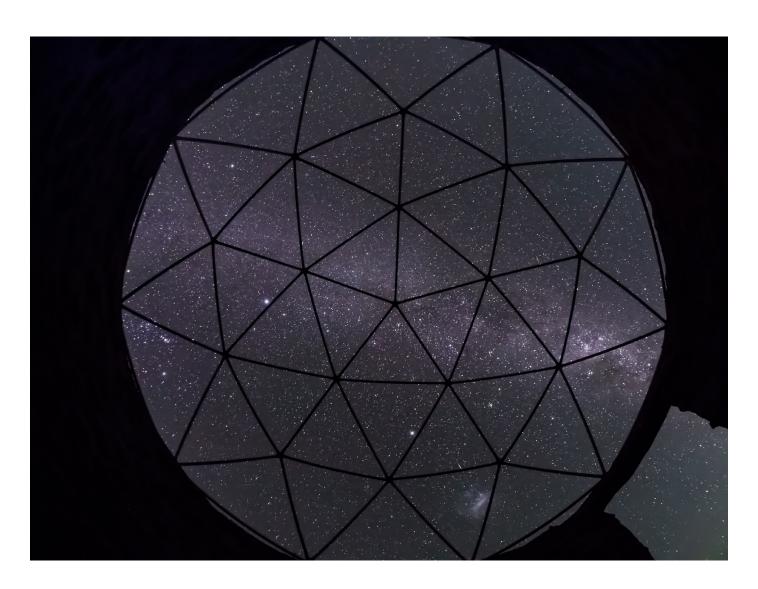
AfAS 2025 was a success not because of any

single institution or individual, but because of a shared belief in what African astronomy can achieve. I extend heartfelt thanks to the AfAS Secretariat, our academic and industry partners, the volunteers and staff, and most of all, the vibrant community of astronomers who participated. Your passion and perseverance continue to illuminate the path ahead.

The support of the Department of Science, Technology and Innovation (DSTI) is highly appreciated.

Looking to the Stars, Together

As we look to the skies, we also look to each other. The future of astronomy in Africa is inherently collaborative, interdisciplinary, and inclusive. UNISA stands ready to walk this journey with AfAS and all our partners—propelled by vision, guided by science, and united by curiosity.



AfAS 2025 Data Science Hackathon: Empowering African Talent through Astronomy and Machine Learning

By Nombali Qodi

As part of the African Astronomical Society (AfAS) conference and general assembly 2025, I had the privilege of organizing and leading the AfAS-2025 Data Science Hackathon, held under the inspiring theme: "Connecting Astronomy in Africa: A Pathway to Growth." Took place from 20–21 March 2025, at the UNISA Science Campus – NB Pityana 02-055A Counsel Chambers in Johannesburg, this event brought together bright young minds from across Africa to tackle real-world astronomical data science challenges.

The hackathon offered an intensive, hands-on experience through the entire machine learning pipeline—from data preprocessing and model development to final scientific interpretation. This was made possible through the use of the ilifu data-intensive research cloud, South Africa's state-of-the-art computing facility, focused on enabling large-scale data science in astronomy and bioinformatics.



We welcomed 21 participants, primarily students and early-career researchers from South Africa and various African countries. Their participation was made possible by the generous support of our sponsors and partners: Development in Africa with Radio Astronomy

(DARA), British Airways, South African Radio Astronomical Observatory (SARAO), Square

Kilometre Array Observatory (SKAO), and the UK Science and Technology Network. This collaboration exemplifies the global commitment to advancing African expertise in data science and astronomy.

The main challenge of the hackathon was adapted from the SKA Science Data Challenge-1 the first in a series of four designed to prepare the global scientific community for the immense data processing tasks associated with the Square Kilometre Array (SKA). We transformed the SKA Science Data Challenge-1 into an accessible tutorial format, tailored for early-career researchers.

The tutorial series included:

Tutorial 1: Data Preprocessing
Tutorial 2: Source Classification

Participants explored essential astronomical data tasks, including:

- Source finding Determining source coordinates (RA, Dec)
- Source characterization Measuring flux density, source shape, and orientation
- Source classification Distinguishing between star-forming galaxies (SFG), AGNs with steep spectra, and AGNs with flat spectra

Three simulated radio-frequency datasets (560 MHz, 1400 MHz, and 9200 MHz) were used, and participants were provided access to sample data via an automated script (binder/download_sample_data.sh).

With temporary ilifu cloud accounts, participants conducted their experiments, supported throughout by dedicated mentors. The hackathon environment was intense—marked by sleepless nights of coding, testing, and refining models.

At the end of the second day, teams presented their solutions to a panel of judges. Awards were given for 1st, 2nd, and 3rd place, as well

as for best presentation. The creativity, rigour, and passion shown by participants were truly impressive.



This hackathon was as challenging to lead as it was rewarding. The success of the event was made possible by the dedication of our invited guest speakers, mentors, AfAS colleagues, and judges. The collective effort created a rich, inspiring learning environment that many participants described as transformative.

Feedback from participants was overwhelmingly positive. Several noted the difficulty of the challenge and suggested expanding the event to three days to allow more time for deeper exploration. This insight will be strongly considered in future iterations.



The AfAS 2025 Data Science Hackathon marked a significant step in building data science capacity within African astronomy. By engaging students in real-world scientific challenges and exposing them to high-performance computing platforms like ilifu, we are not only fostering technical skills but also building a vi-

brant, collaborative community ready to contribute to projects like the SKA.

We look forward to expanding this initiative in the future and continuing to empower Africa's next generation of astronomers.

A New Dawn for African Planetaria: Innovation, Unity, and Growth By Sally-Ann Macfarlane



Some of the enthusiastic participants at the APA Biannual Workshop, held at the UNISA Florida campus in Pretoria, South Africa, from 21 - 22 March 2025. Credit: AfAS

Since its launch in March 2019 at the Iziko Planetarium and Digital Dome in Cape Town, the African Planetarium Association (APA) has been steadily working to grow and unite the planetarium community across the continent. Operating as a committee under the African Astronomical Society (AfAS), with support from the Department of Science, Technology, and Innovation (DSTI), and affiliated with the International Planetarium Society (IPS), the APA serves as a vibrant network for nurturing planetaria in Africa, fostering collaboration, creativity, and promoting multidisciplinary engagement.

Over the past year, the APA has undergone an important period of renewal and restructuring. A new committee, announced during the APA Biannual Workshop in March 2025, is set to lead the revitalisation of the Association. The diverse committee includes members from across the continent, reflecting the inclusive and Pan-African nature of the APA's mission. As the new team prepares to elect a chair and vice chair, outgoing IPS representative Susan Murabana and current APA chair Sally Macfarlane are helping ensure a smooth transition.

Announcing the New APA Committee:

- Zridi Abdeltif (Morocco)
- Sosina Desu Sisay (Ethiopia)
- Onwughalu Elochukwu Callistus (Nigeria)
- Nebiyu Suleyman Mohammed (Ethiopia)
- Elizabeth Naluminsa (Uganda)
- Léon Snyman (South Africa)
- Egbuim Timothy C. (Nigeria)
- Meklit Wogayehu GebreHanna (Ethiopia)
- Thuto Ndlovu (South Africa)
- Constant Volschenk (South Africa)
- Sally Macfarlane, current chair (South Africa)
- Susan Murabana, advisory role, current IPS Africa representative (Kenya)

The APA Biannual workshop was held at the UNISA Florida campus in Pretoria, South Africa, from 21 to 22 March 2025, in conjunction with the AfAS 5th annual conference and general assembly. This event served as a crucial platform for reflection, engagement, and forward planning, where participants shared insights, success stories, and challenges from across Africa's planetarium landscape. Highlights included sessions on how planetaria can support community growth, foster STEM education, and connect science with culture through storytelling.



Biruk Abrham Abte presents his talk, entitled "Under the Dome: Inspiring Curiosity Through Planetariums" at the APA Biannual Workshop in March 2025.



Sosina Desu leads a lively discussion on "Building the Future of African Planetaria: Collaboration, Innovation, and Community Impact". Credit: AfAS

Workshops added hands-on momentum to the discussions. Sosina Desu explored the future of African planetaria through innovation and impact, Dominic Vertue led participants on a cosmic journey of self-discovery, and Nico van der Merwe unveiled cost effective dome projector technologies that have great potential to help democratise access to the stars.

Participants also witnessed planetarium innovation in action. The mobile dome set up by Sci-Bono Discovery Centre provided an inspiring example of outreach on the move, complete

with a live demonstration of Nico's more affordable projector systems. Meanwhile, planetarium director Dr Moumita Aich's showcase of the <u>Wits Anglo American Digital Dome's</u> cutting edge systems captivated participants with a glimpse of what is possible when technological innovation meets visionary thinking.

The APA workshop also spotlighted the power of digital innovation. Here, the APA draws inspiration from initiatives such as those at the Iziko Planetarium and Digital Dome (IPDD), which has pioneered data visualisation through its col-

Iaboration with the IDIA Visualisation Laboratory. At the IPDD, large-scale immersive datasets, including 3D catalogues of the Cosmic Web, are brought to life in the dome, offering a deeply engaging, multi-sensory way to explore science. This innovative work ties directly into the APA's broader vision, to not only grow expertise within its membership but also to use planetaria as dynamic tools for education, research, and storytelling.

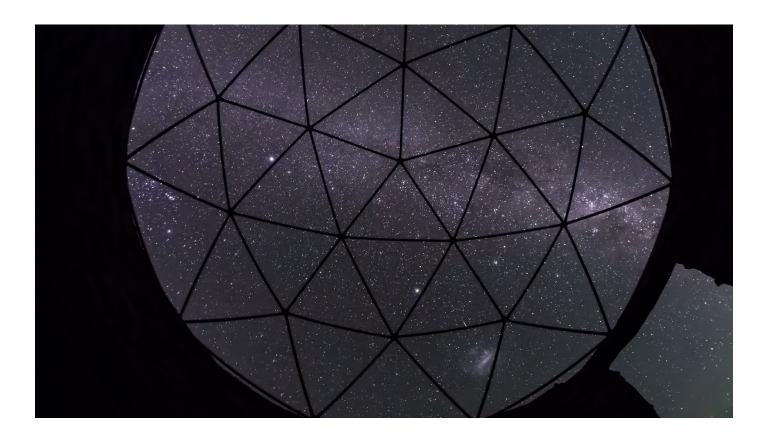
Looking to the future, the APA has ambitious goals. Rebuilding the Association's website and digital presence is a priority, along with strengthening communication, securing funding, and offering both regional and virtual workshops. These will cover content development, operations, software training, and sustainability practices. The APA also plans to support the refurbishment and donation of domes via the International Planetarium Society (IPS) network, grow mobile dome access, and launch a seed grant for the creation of free, locally produced African content.

Furthermore, as an affiliate of the IPS, the APA is proud to encourage planetaria across Africa to take part in the centenary celebrations of the IPS - a global event commemorating 100 years

of planetariums. These celebrations provide a valuable opportunity to reflect on the rich history of planetaria, highlight current achievements, and imagine future possibilities.

The APA remains committed to its strategic objectives: global networking, African content development, public awareness, and skills building. Through continued collaboration with partners such as the Department of Science, Technology and Innovation (DSTI), AfAS, International Planetarium Society (IPS), Inter-university Institute for Data Intensive Astronomy (IDIA), and institutions across Africa, the APA envisions a future where planetaria are not just educational spaces but vibrant cultural and scientific hubs - tools for unity, discovery, and inspiration across the continent.

As we reflect on the achievements so far and prepare for what's ahead, we thank our members, partners, and hosts (especially the DSTI, AfAS, UNISA, Sci-Bono, and the Wits Anglo American Digital Dome) for their support in making this year's workshop a success. The road ahead is exciting, and with a renewed sense of purpose and unity, the African planetarium movement is ready to reach new heights.



BLUEshift Africa: Accelerating towards the future of undergraduate astronomy education in Africa

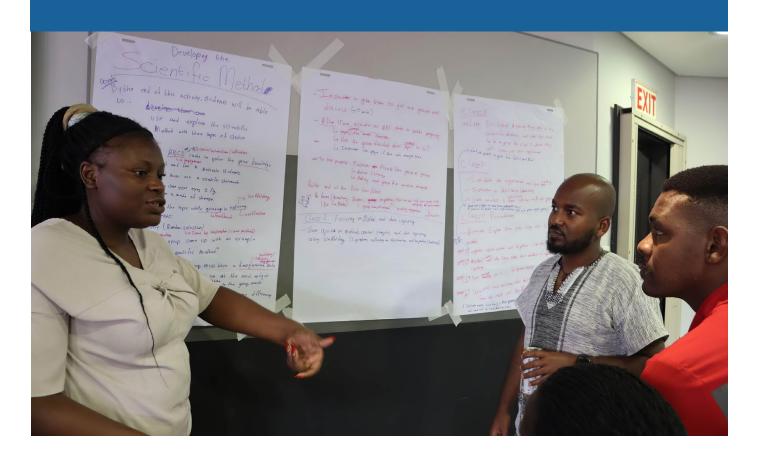
By Dr. Linda Strubbe

We are delighted to share that the first BLUEshift Africa Workshop on Undergraduate Astronomy Teaching took place 22-23 March, at the African Astronomical Society conference in Johannesburg, South Africa. Twenty-three early-career African scientists participated in a two-day in-person workshop led by Dr. Linda Strubbe of Strubbe Educational Consulting, focused on evidence-based, inclusive teaching practices, designed to strengthen undergraduate astronomy teaching in Africa.

In the vision to increase the number of African astronomers and related Science, Technology, Engineering and Mathematics (STEM) professionals, strengthening undergraduate astronomy education is a crucial and often overlooked piece. In undergraduate studies, students build their

foundation of scientific content knowledge and practices that postgraduate education relies on, and many decide whether to pursue postgraduate studies. The BLUEshift Africa project speaks to the African astronomical community's <u>Vision 2024</u>, which highlights "a need to improve teaching capacity" and recommends "organizing teaching skills development workshops."

The cornerstone of the BLUEshift Africa project is two 2-day workshops on undergraduate astronomy teaching for early-career scientists (2025 and 2026), followed by online Communities of Teaching for workshop participants (and beyond). The project began with a pilot study on undergraduate astronomy teaching in Africa, and will close with a panel discussion for AfAS and AAS members in late 2026.



Twenty-three scientists from 9 countries participated: South Africa, Ethiopia, Zambia, Nigeria, Botswana, Kenya, Mozambique, Uganda, and Zimbabwe, and. Participants were early-career astronomers: lecturers, postdoctoral researchers, and graduate students.

The main goals of the workshop were to help participants learn to teach astronomy in more interactive and inclusive ways, and building community around university-level astronomy teaching in Africa. In line with these goals, the workshop format was highly interactive, with many smallgroup discussions, group voting questions, and opportunities for individual reflection. Workshop topics included: research-based principles of teaching and learning, teaching to promote equity and inclusion, and active learning techniques such as Think-Pair-Share. Participants discussed case studies of challenging teaching scenarios from their own experience, worked in groups to design their own active learning activity, and shared their work via poster presentations.

Workshop participants engaged deeply with the workshop, sharing ideas in rich discussions, with great thoughtfulness and care in how to bring the best for their students. Many said that the workshop promoted a warm and welcoming community for early-career astronomy educators. "The BLUEshift workshop was incredibly helpful," said participant Mehbuba Ahmed (Associate Researcher at the Space Science and Geospatial Institute, Ethiopia). "As an astronomy teacher, I gained practical strategies and fresh perspectives to better engage my students. In short: valuable, practical astronomy teaching tools; inspired learning; enhanced student engagement", Mehbuba Ahmed added. Facilitating the workshop was deeply rewarding for me, too. I loved listening to participants' discussions, seeing and supporting their creative teaching ideas, and getting to know the

participants throughout the workshop. The BLUEshift project is engaging in formal external evaluation by Pivot Global Education Consulting, to help us learn more systematically about participants' workshop experiences and keep improving for the future.

The discussions and sharing will continue through four online Communities of Teaching sessions to be held later this year. We plan to open one or more of these sessions to all interested in university astronomy teaching in Africa (not just workshop participants). Please join us.

Another main goal of the BLUEshift Africa project is increasing our understanding of the landscape of university astronomy instructors and professional development opportunities across Africa. In January 2025, we conducted a pilot study of undergraduate astronomy teaching in Africa, offering a survey to the African astronomical community in both English and French. Seventy-eight people responded (73 in English, 5 in French). I led a Town Hall special session at the AfAS conference to discuss results. A few main findings were:

- Undergraduate astronomy courses are being taught in many African countries (at least 13)
- A number of instructors are using some forms of active learning in their astronomy teaching
- There is substantial interest in developing skills for teaching undergraduate astronomy around the continent at least 50 people from at least 21 countries. The pilot study indicates there is a real need and interest in professional development in teaching for early-career African astronomers. In the future, we plan to share these results and hope to conduct more in-depth studies of this topic.

We are excited to hold our second BLUE-shift Africa workshop at the 2026 AfAS conference in Botswana. We hope you will consider applying.

Highlights from the Blueshift Workshop

By Elizabeth Naluminsa

On 22nd and 23rd of March 2025, I was privileged to participate in the BLUEshift Africa Workshop on Undergraduate Astronomy Teaching. This was one of several workshops held as part of the AfAS2025 conference hosted by the University of South Africa.

The aim of the workshop was to train and/or refresh participants on six principles of teaching and learning based on empirical research data (adapted from Lovett et al. (2023) and Jossey-Bass et al. (2020)). The main focus of the workshop was active learning as a cornerstone for education, and the different ways active learning can be facilitated in our classrooms or lecture rooms.

This was a hands-on workshop, and we got to experience, first-hand, the results of different methods of teaching on the learning outcomes of students. Activities included several groupwork exercises, ABCD card-voting + think-pairshare, personal reflection and discussions on real life classroom scenarios from the experiences of different participants. Interacting with colleagues from different parts of the continent, it was eye-opening to find that we all faced very similar challenges in our work, hence very helpful to share tips and tricks on how to surmount these challenges. This was even more important to me because my reason for attending the workshop was that I had faced some challenges in the process of my teaching which I wanted to share with colleagues in the field, only to find we all faced most of the same speed bumps, ranging from disinterested students, preconceived notions about astronomy (and physics) that affect the learning process, handling complex topics with students of varied backgrounds/ strengths, who copy-pasted assignments from Al chat-bots. A key takeaway from these discussions was that teaching is itself a never-ending learning process; learning from peers as well as from our students and continuously pivoting or fine-tuning our practices for maximum benefit to the student. As the saying goes - "No two classes are ever the same" - not even with the same students at the same time of day and with the same topic at hand.

It is, probably, no surprise that I say my favorite activity was designing an active learning activity in our different groups, plus the cross-group discussions that followed. (An activity to design an activity, right?) Not only did it enable us to bring our different backgrounds, experiences and (sometimes wild) ideas together, but it showed us practically that teaching is most effective when its focus is the student. If students are actively engaged in the learning process, whether by way of discussions, writing down their thoughts, justifying their ideas to their classmates etc, then they will be better placed to analyze what they already know, conceptualize new content, and hence construct new networks of understanding, perhaps even leading to creation of new knowledge. Active learning is in fact crucial to innovation. Another concept I liked very much was that of "exit tickets", where students give feedback (can use sticky notes) at the end of a lecture on what they understood, what they did not understand, and what they would like to delve deeper into, or any other useful feedback to help improve the learning process.

By now the reader is probably wondering what are the actual principles that were covered in all the activities mentioned above. One of the principles is "Social Interaction" which, as you can see, is ubiquitous in all the activities mentioned. "Active Engagement" is another principle which does not necessarily mean the student should be speaking all the time, but rather actively engaged in one way or another, e.g. writing down their thoughts. The principle of "Scaffolding" builds on a pedagogical approach to teaching, building from the known to the unknown, with the extra step of challenging the students to discover new knowledge without support from the teacher. I shall stop at these three principles here (for tasters), because I want to allow the reader some room for adventure as they find out more at Strubbe Educational Consultants website (site). I look forward to applying all I learned from the workshop in my future work as an educator, and I am excited about the possibilities.

Astronomy Outreach in Action: AfAS Conference Leaves a Lasting Legacy

By Duduzile Kubheka

The African Astronomical Society (AfAS) conference once again presented an opportunity for outreach and public engagement opportunities with the local communities. The outreach team in collaboration with a wide network of partners—including the University of South Africa (UNISA), National Aeronautics and Space Administration (NASA), South African Radio Astronomical Observatory (SARAO), BRICS Astronomy, Johannesburg City Parks and Zoo and various other astronomers and outreach practitioners, brought astronomy to life for learners and educators in Johannesburg and surrounding communities.

Monday the theme was: Bridging Worlds with the Moon

The week began with the delivery of a lunar model to Botlhokwa High School. This symbolic and educational gesture was made possible through the efforts of the UNISA, AfAS, and NASA teams. The visit sparked excitement and curiosity among the learners, providing them with a rare opportunity to engage directly with representatives from leading space science institutions. The school will also have the opportunity for continued engagements with the NASA and UNISA astronomy teams as they use the lunar model to participate in science initiatives.

Tuesday: Expanding the #Astronomy2024 Legacy

Outreach activities continued in Thembisa, beginning at the Moipone Academy Science Centre. The team then visited three local schools—Zitikeni Secondary School, Tlhakanang Primary School, and Moriting Primary School—where they delivered television systems as part of the #Astronomy2024 Legacy Project. This ambitious initiative aims to donate 100 screens to schools and science centres across South Africa, as the host country for IAU-GA2024, but also expand the virtual engagements with global science organisations and connect learners

with world-class scientists and opportunities to the rest of the continent through the work with various participants in Africa.

These engagements were supported by a dynamic team of ambassadors, science centre staff, and AfAS conference delegates from across Africa—demonstrating the strength of continental collaboration in science engagement.

Wednesday: Learners Meet Scientists at HartRAO

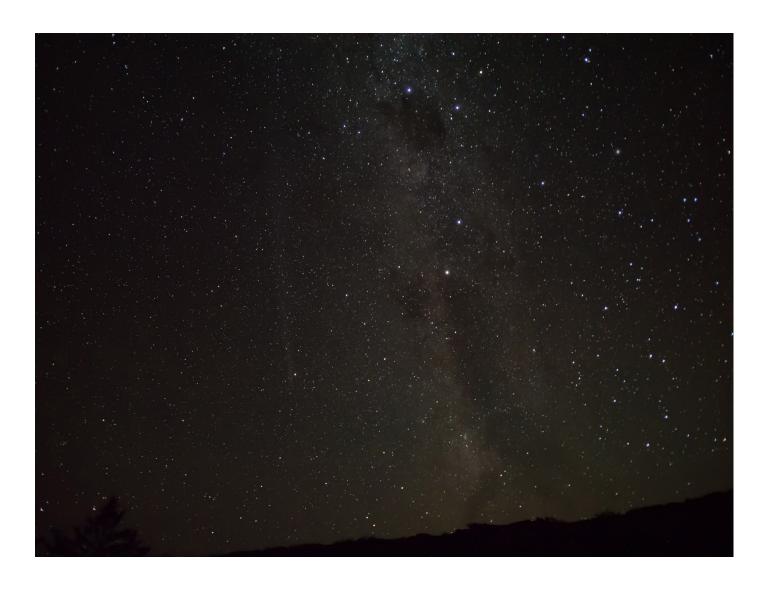
In partnership with UNISA Science Engagement Centre (SEC) and the South African Radio Astronomy Observatory (SARAO), a group of learners went on an excursion to the Hartebeesthoek Radio Astronomy Observatory (HartRAO). Here, they toured the facilities and engaged in handson learning activities with astronomers and volunteers from the AfAS conference. These interactions offered learners exposure and proximity to the world of professional astronomy, particularly, radio astronomy infrastructure in South Africa.

Also Wednesday: Earth and Beyond – Merging Astronomy and Environmental Sciences Simultaneously, another group of astronomers visited learners in collaboration with BRICS Astronomy and Johannesburg City Parks and Zoo. The focus was on mentoring and preparing students for the Earth and Beyond Astro Fair—a project that creatively fuses environmental science and astronomy. This initiative challenges learners to develop innovative projects that explore the intersection of the two fields, with top projects going on to compete in the prestigious Eskom Expo for Young Scientists Competition.

A Celebration of Collective Effort

The true success of these outreach efforts lies in the selfless dedication of the many ambassadors, astronomers, educators, and professionals who volunteer their time to serve communities. Their commitment enables AfAS to extend its reach far beyond the walls of the conference venue and into the hearts and minds of Africa's future scientists.

AfAS remains committed to inclusive engagement, and through these growing partnerships and initiatives, we continue to connect more communities with the wonder of astronomy. Each annual conference not only brings professionals together—it also leaves behind a lasting legacy of inspiration and opportunity for the host community.



The Impact of AfAS Funding Support

By Pulleng Moleko-Boyce

As a first-time attendee of the AfAS workshop, I had the privilege of not only participating in an inspiring gathering of like-minded individuals but also presenting the work that has been made possible through the generous support of AfAS. Being funded to attend and share our experiences was an incredible honour, and it has left a lasting impression on the direction of the Nelson Mandela University Science Centre.

The Science Centre, which officially launched its fixed planetarium on the 15th of March 2025, has become a beacon of innovation in the education space. This milestone, achieved with support from various stakeholders, is a testament to the transformative power of collaboration and funding. The fixed planetarium serves as a pivotal tool for engaging various audiences including the broader community in science, social sciences and astronomy. However, as discussed during the workshop, our vision extends beyond just a physical structure; it is about making science accessible to all, especially the underserved communities that often lack the resources to engage in such experiences.



Through the discussions at the AfAS workshop, it became evident that there is a pressing need to expand access to planetarium experiences, particularly for rural schools and the underserved communities that are often left out due to geographical and economic barriers. One of the key reflections shared during the workshop was the impact of mobile planetariums complementing existing fixed domes. These mobile units serve to bridge the accessibility gap, bringing immersive astronomical experiences directly to learners in remote areas. The idea proposed was that public schools could benefit from free access, while private schools could participate through a fee-for-service model, ensuring sustainability while maximizing reach. This concept was highlighted as a practical solution to democratize science education.

Additionally, the discussions highlighted the importance of developing planetarium content that celebrates Africa's scientific and cultural heritage. Integrating African and Indigenous Knowledge Systems (IKS) into planetarium programming was emphasized as a way to not only teach science but to also tell African stories that are often underrepresented in mainstream scientific education. This approach would not only enrich the learning experience but also instill a sense of ownership and pride in African learners by showcasing scientific contributions and narratives from the continent.

The reflections and proposals shared during the workshop underscore a collective vision to make planetarium experiences more inclusive, culturally relevant, and accessible to all learners, regardless of their location.

Attending the AfAS workshop was a deeply enriching experience, offering invaluable opportunities for networking, collaboration, and knowledge sharing. It reinforced the importance of continued partnerships, and the collective effort needed to overcome the challenges facing science education on the continent. The funding and support from AfAS have played a critical role in enabling the Nelson Mandela University Science Centre to expand its outreach, enhance its programming, and strengthen its connection with the community.

Looking ahead, the Centre remains committed to furthering its mission of promoting accessible, inclusive, and culturally relevant science education. We are excited about the future possibilities for collaboration, content development, and outreach. The AfAS funding has not only enabled us to create impactful educational experiences but has also given us the tools and networks needed to sustain these initiatives in the long term.

My Experience During the AfAS 5th General Assembly and Annual Conference

By Lealem Kinfe Alula

From March 21st to 28th, 2025, I had the immense honour of attending the 5th General Assembly and annual conference of the African Astronomical Society (AfAS), held in Johannesburg, South Africa. I was fortunate to be a recipient of the AfAS scholarship, which generously covered my accommodation and flight expenses throughout the entire conference. This support made my participation possible, and I am deeply grateful for the opportunity.

The event brought together leading astronomers, researchers, educators, and students from across Africa and the globe. Being part of this vibrant and intellectually rich environment was a milestone in my career in space science. As the deputy manager of the Ethiopian Space Science Society (ESSS), I had the unique privilege of representing Ethiopia in both a talk and a poster presentation session. During these sessions, I showcased the efforts being made to advance the space sector in Ethiopia, from public outreach to educational initiatives and capacity-building projects. The feedback and interest I received from fellow participants affirmed the importance and impact of the work we are doing at ESSS.

One of the most memorable aspects of the event was the chance to interact directly with professionals, academics, and fellow enthusiasts who share a passion for space science. The diversity of perspectives, experiences, and research topics presented throughout the conference greatly expanded my understanding of astronomy in Africa and beyond. It was an enriching exchange

that I believe will shape my future endeavours in the field.

Before the general assembly officially began, I had the privilege of participating in the BLUE-SHIFT Africa workshop. It was during this workshop that I met Dr. Linda Strubbe. She facilitated an engaging and practical session focused on communicating and teaching astronomy to undergraduates. The workshop emphasized inclusive teaching methods, active learning strategies, and the importance of cultural context in science communication. I learned a great deal from this experience, both in terms of content delivery and pedagogical approaches.

Inspired by the BLUESHIFT workshop, I am now preparing to organize a similar training session for my colleagues back in Ethiopia. The goal is to share the tools and strategies I learned, so that together we can communicate science effectively to students and the wider public. I believe that equipping educators with better teaching practices is essential to nurturing the next generation of African astronomers and engineers.

In summary, my experience at the AfAS 5th general assembly and the BLUESHIFT Africa workshop was nothing short of transformative. It strengthened my commitment to science communication, deepened my professional networks, and reaffirmed the critical role Ethiopia plays in Africa's space science journey. I return with renewed energy, new knowledge, and a sense of purpose. Per Aspera Ad Astra.

Building Future African Planetaria: From Vision to Action at AfAS 2025 and the APA Workshop

By Sosina Desu Sisay

Scientific advancement in Africa requires both robust research and innovative platforms for public engagement. Planetaria serve as pivotal tools for communicating complex astronomical phenomena to diverse audiences. This article documents my participation in two major events—African Planetarium Association (APA) workshop and AfAS2025—and their impact on my vision to help build Ethiopia's first modern planetarium.

As an early-career astrophysics researcher, I was selected to participate in the APA workshop, where I joined an elite group of young African scientists. Sessions included high-level discussions on science diplomacy, leadership, and the role of astronomy in sustainable development. My focus was on science communication strategies through planetaria and their integration into national education systems.



At the AfAS conference, I presented three eposters—one of which, titled 'Impact of OB-Type Stars on Star-Forming Clumps within Molecular Clouds,' reflects my ongoing MSc research. The event allowed me to exchange insights with African and global astronomers on star formation, observational techniques, and astroinformatics.

The funding provided by AfAS covered essential expenses that otherwise would have prevented my participation. This support not only enabled academic contribution but also amplified my presence in professional networks where the future of African astronomy is being shaped.

Discussions around the role of planetaria in Africa emphasized their potential for both science communication and skills development. I now actively plan to contribute to a proposal for establishing Ethiopia's first digital planetarium with a curriculum tailored to local contexts.

AfAS's dedicated platforms for youth and women in astronomy were particularly inspiring. These sessions reinforced the importance of inclusive leadership in science and the need for role models in technical fields.

The APA workshop and AfAS 2025 conference were catalytic in aligning my academic goals with Africa's broader astronomical ambitions. With institutional support, young scientists like myself can become architects of Africa's scientific future—starting with visionary tools like planetaria that bring the universe closer to the people.

I express my sincere gratitude to the African Astronomical Society for the generous funding and opportunity to contribute. Special thanks to the African Planetarium Association (APA) workshop organizers and mentors for the professional development support.

How AfAS Support Helped Me as a Student and Astronomy Club Member

By Tshegofatso Shabangu

Getting support from the African Astronomical Society (AfAS) helped me a lot, both in my studies and in the work I do in the astronomy club at my university. As a student, I don't always have the money to travel or join important events, so the AfAS grant came at the perfect time.

The AfAS funding helped me attend a hackathon that was very important for my learning. I had to travel from Sol Plaatje University in Kimberley to Johannesburg, and the flight was expensive,

but the grant covered my transport. That was a big relief because I would not have been able to attend without that help. AfAS also supported meals and accommodation during the event, removing all concerns and allowing me to focus fully on learning and meeting new people.

At the hackathon, I met other students and professionals from different parts of Africa. I learned a lot about teamwork and space science. Even after the event, I stayed in touch with the people I met there.



As an executive member of Sol Plaatje University's Astronomy Club, I used the connections I made during the hackathon to organize online webinars for our members. We invited guest speakers to talk about astronomy and answer questions from students. It felt good to share that opportunity with others in my school.

The grant did not just help me personally — it helped my whole university community. Our Astronomy Club became more active, and more students became interested in space science because of the events we hosted.

I am really thankful for the support from AfAS. It made me believe more in myself and in the work I want to do in the future. If you are a student and you get support like this, use it well. Attend events, make new connections, learn as much as you can, and bring that knowledge back to your school or community. That way, more people benefit.

Thank you, AfAS, for giving me this chance. Your support helped me grow and gave me a voice in the astronomy community.

2026 African Astronomical Society Conference in Botswana: Astronomy on Safari

By Fahmi Mokhupuki

The Botswana International University of Science and Technology (BIUST) is honoured to host the 2026 edition of the African Astronomy Society (AfAS) conference in Botswana. Scheduled from the 23rd to the 27th of March 2026. the conference will take place in Kasane, a scenic town in the northern part of the country that serves as a gateway to the Chobe National Park, home to one of the largest elephant populations in Africa. Moreover, Kasane is located along the Chobe River, near the Kazungula Quadripoint where the borders of Botswana, Namibia, Zambia and Zimbabwe converge. Conference attendees will have a unique opportunity to visit and discover the diverse cultures that define this region, thus, setting the scene for an astronomy experience on safari.

Botswana's selection as the AfAS2026 hosts marks a significant milestone in the country's astronomy development program. In 2011, a formal endeavour to advance astronomy in Botswana was initiated with a focus on training undergraduate and postgraduate Batswana students in South African Universities. Since then, an astronomy development Directorate has been set up at BIUST to build astronomy infrastructure, progress astronomy research, document indigenous knowledge, use astro-tourism to complement Botswana's tourism industry, and lastly, transform society through community engagement initiatives and outreach.



The AfAS conference is poised to significantly enhance the visibility, collaboration, and scientific impact of emerging astronomy initiatives in the country. Currently, a radio astronomy observatory designed to host co-located instruments is under development on the BIUST campus in Palapye. The facility will house the Botswana-German Telescope (BGT), a MeerKAT Extension type dish that will initially operate in the S- and C/X- bands, in both single dish and Very Long Baseline Interferometry (VLBI) modes. The project is owned by the Botswana Government through the Ministry of Communications and Innovation (MCI), in collaboration with the Max-

Planck Institute for Radio Astronomy (MPIfR), the German Centre for Astrophysics (DZA), and the South African Radio Astronomy Observatory (SARAO). The observatory will also host an outrigger station in collaboration with the University of Kwazulu-Natal for the Hydrogen Intensity Real-time Analysis experiment (HIRAX). The outrigger station will comprise sixteen 6m diameter dishes to primarily identify and localise Fast Radio Bursts. In recognition of Botswana's dark skies, the Directorate

aims to develop more infrastructure in the form of a National Optical Observatory comprising a research-grade telescope, a planetarium, and a dedicated science communication and outreach park.

At the 2026 AfAS conference, Botswana aims to highlight the multidisciplinary nature of astronomy, which integrates expertise from science, engineering, and software development. By embracing an open and inclusive approach that welcomes contributors from diverse back-

grounds, the conference will foster meaningful knowledge exchange between leading African and international experts and a new generation of Botswana based researchers. As part of a broader focus on community-based engagement, outreach and science communication methods will feature prominently on the conference program to inform the development of impactful initiatives that are aimed at promoting public understanding of Science, Technology, Engineering and Mathematics (STEM) subjects and careers through astronomy.



To complement the conference proceedings, attendees will have an opportunity to engage in a cultural night that will feature the sharing of indigenous astronomical knowledge, and a stargazing session to showcase Botswana's exceptionally dark skies. Additionally, in the week preceding the conference, a series of workshops will be conducted for undergraduate students and early-career researchers, providing targeted training and networking opportunities. Finally, prior to the conference, dedicated outreach activities will engage pre-university students and their teachers through school visits, interactive demonstrations, and astronomy themed educational sessions.

The AfAS2026 conference represents a pivotal opportunity for Botswana to consolidate its

position as an emerging hub for astronomical research, education, and innovation in Africa. By convening leading scientists, engineers, educators, and policymakers, the conference will not only highlight national progress but also foster new collaborations across the continent and beyond. Through its integrative programme, spanning scientific exchange, outreach, cultural engagement, and capacity building, Botswana aims to demonstrate the transformative potential of astronomy in advancing knowledge, technology, and societal development. As the host nation, Botswana is committed to delivering a memorable and impactful conference that is coupled with an enriching, well-curated experience for attendees.

Astronomy for Everyone: Empowering Communities Through the IAU OAO's African NOCs

By Naomi Asabre Frimpong

At the heart of astronomy outreach and public engagement across Africa is a vibrant network of dedicated individuals transforming how people experience the universe. Through the IAU Office for Astronomy Outreach (OAO) and its National Outreach Coordinators (NOCs), astronomy is brought to life in classrooms, villages, observatories, and community spaces, making it accessible, inclusive, and inspiring.

The IAU OAO is driven by a simple yet powerful mission: Astronomy for Everyone. Through global projects, resource sharing, and international partnerships, the OAO works to break down barriers and ensure that astronomy is within everyone's reach and accessible.

Central to this mission is the NOC network—the driving force behind public astronomy engagement across the African continent. These passionate volunteers are professional and amateur astronomers, educators, community leaders, and science communicators who design outreach that is culturally meaningful, community-led, and impactful.

Currently, 30 African countries are represented in the NOC network, each developing activities that reflect local priorities and aspirations. Whether building tactile models for the blind, hosting moon-sighting events, inspiring girls in STEM, or offering the public breathtaking night sky views, the NOCs demonstrate that astronomy is a powerful tool for learning, empowerment, and community building.

Here are just a few inspiring stories from the field.

In Algeria, the Sirius Astronomy Association continues to bring people together beneath the vast Sahara sky. Their immersive astronomy missions foster a deep appreciation for the cosmos while uniting regional communities. Under the star-filled nights, participants experience the awe of the Universe, guided by passionate local

educators and astronomers.

In Cameroon, Mbonteh Roland Ndunge and the CASRO team have partnered with Stars Shine for Everyone to deliver unforgettable stargazing sessions. These events not only ignite curiosity but also provide vital access to telescopes and educational resources, especially for young learners.

In Mozambique, Claudio Paulo and his team organised a remarkable event that brought together nearly 450 girls to celebrate women's contributions to science and astronomy. This gathering was more than a celebration—it was a powerful message of possibility, representation, and encouragement for future scientists.

In Ethiopia, the NOC team is transforming accessibility in astronomy. By creating tactile astronomy models, they are opening the wonders of the universe to blind and low-vision participants. These models offer a sensory bridge to the stars, affirming that astronomy truly is for everyone

In Nigeria and Senegal, local teams are weaving cultural heritage into contemporary astronomy. Whether it's moon-sighting events rooted in tradition or solar observations in school yards, initiatives highlight the different ways in which science and culture can enrich one another, making astronomy both relevant and deeply resonant.

In Morocco, the Festival of Ifrane, co-organised by the NOC Morocco team, brings astronomy to life through creative and hands-on exhibits. This vibrant festival captures the public's imagination, offering interactive experiences that blend education, art, and scientific discovery.

These examples reflect the vibrant spirit of astronomy outreach in Africa, marked by innovation, inclusion, and deep connection to local communities. Through their dedication, NOCs across the continent are bringing the Universe closer to people's lives and nurturing a new

generation of curious minds and bold visionaries—and these are just a glimpse. Across Africa, countless other remarkable initiatives are unfolding daily that may not be captured here, but are equally impactful and inspiring. This dynamic network is shaping a future where the stars truly belong to everyone.

Looking Ahead: Strengthening the Network

The OAO is committed to growing and supporting the NOC network by expanding programs, deepening partnerships, and ensuring sustainable outreach across Africa. While making astronomy universally accessible may seem ambitious, we believe that with collaboration, dedication, and grassroots leadership, this dream is well within reach.

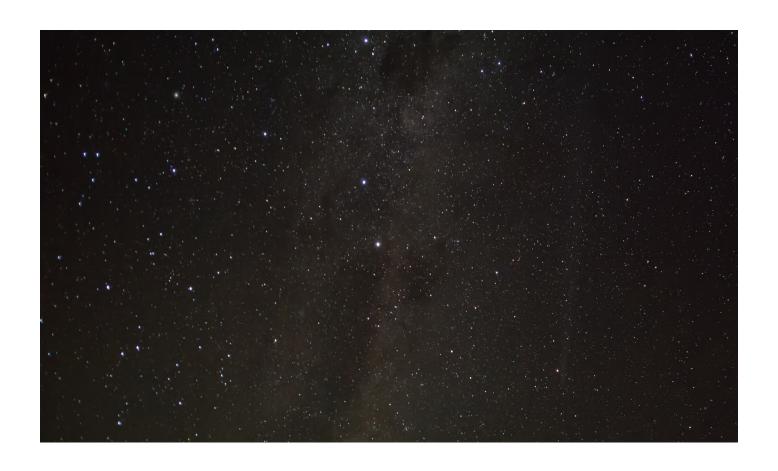
Being a NOC means joining a global movement with access to exclusive resources such as the NOC Funding Scheme, specialised training, and amplification of your work through international platforms. Most importantly, it means being part of a transformative mission to make astronomy a shared experience for all.

If you are passionate about public engagement in astronomy and believe your community could benefit, we invite you to connect with us. Together, we can inspire the next generation of astronomers and sky-watchers across Africa.

At the OAO, we don't just look up at the stars—we bring them closer to home.

Astronomy for everyone, everywhere.

Because the Universe belongs to us all.



The Closing Ceremony of the Algerian's 20th Astronomy Festival With A live Tribute to AfAS and South Africa

By Jamal Mimouni

The 20th edition of Africa's longest-running astronomy festival lived up to its reputation as a landmark scientific and public engagement event. This annual public-oriented gathering concluded on the evening of Saturday, May 3, 2025, with a distinguished ceremony. Delegations from participating countries affirmed the festival's dual status as Algeria's foremost public astronomy initiative and the largest event of its kind in Africa and the Mediterranean basin - renowned for its exceptional public outreach, extensive scientific programming with more than twenty talks delivered, comprehensive educational workshops, and many hands on activities for the youngsters.

The 2025 edition saw expanded international participation, with representatives from 10 countries across three continents - including five African nations - alongside Algeria's leading space and technology institutions (ASAL, CDTA, CRAAG) and numerous national and astronomy associations.





The closing ceremony opened with a vibrant address by Prof. Willy Benz, President of the International Astronomical Union (IAU), who expressed pride in the festival's growth and its pioneering role in promoting scientific culture across Africa and the Mediterranean basin. A keynote speaker, Dr. Bernard Fanaroff—a renowned South African scientist—shared insights into both his anti-apartheid activism alongside Nelson Mandela, and his post-apartheid contributions to astronomy. His work was instrumental in planning projects that established South Africa as a global leader in radio astronomy, particularly through the planning of the MeerKAT observatory, the SKA Observatory in the Karoo Desert.

Highlights included a captivating presentation by Egyptian astrophotographer Omar Abdelwahab (Cairo University), who guided the audience on a visual journey through the cosmos using breathtaking images captured primarily from Egypt's Sahara Desert in Northeastern Africa.

The artistic program dazzled with a playful scientific theater act titled "We're With You, Sun", a masterful blend of astronomy outreach and environmental messaging delivered through engaging, accessible storytelling and played by some twenty youngsters. The three acts' performance presented a celestial beauty contest between our Sun and its contender Proxima Centauri, revealing stellar physics through a playful exploration of cosmic 'mores and customs', making complex astronomy both accessible and entertaining.



A special tribute highlighted both AfAS and South Africa's pioneering efforts in democratizing astronomy across Africa, brought into sharp focus by the presence of Takalani Nemaungani, the festival's honorary guest and keynote speaker representing AfAS, African Science Stars, and South Africa's Department of Science, Technology and Innovation (DSTI).

The program continued with poetic brilliance as Nadir Teyyar, the renowned Algerian poet and mathematician from Mentouri University, Constantine, delivered a stirring recitation. The performance reached its crescendo when master choralist Abderahmane Bouhbila and his ensemble transformed the poetry into an improvised melodic masterpiece live before the audience, a signature artistic feat that has cemented his reputation across Algeria and beyond.

The Southern African Large Telescope (SALT) time allocation

By Itumeleng Monageng

Since the commencement of scientific operations in 2011, the Southern African Large Telescope (SALT) has been a highly productive flagship facility in Southern Africa. It has consistently generated numerous publications in high-impact journals and has played a significant role in the postgraduate projects of many students who have successfully graduated.

The telescope's versatility and its range of instruments offer SALT users a chance to develop diverse skills for analysing and interpreting optical datasets. As of 2022, researchers from various African countries have the opportunity to use SALT regularly. Proposals submitted by researchers on the continent are considered under the South African timeshare on SALT, and evaluated by the South African SALT Time Allocation Committee (SASTAC). Postgraduate students and emerging researchers are especially encouraged to propose time on the telescope and begin building networks at the early stages of their careers. These collaborations can foster lasting connections and enhance astronomy development and research across the continent.



The call for proposals for the Southern African Large Telescope (SALT) occurs twice a year, with successful proposals being accepted over two six-month semesters. Typically, the deadlines for Phase 1 submissions are at the end of January for observations scheduled between May and October. For observations taking place between November and April, the deadline is generally at the end of July.

Before submitting a proposal, researchers use various planning software tools to prepare their submissions. The Visibility Tool helps users determine the accessibility and amount of time available each night for observing astronomical targets with SALT. Each instrument on SALT, including the Robert Stobie Spectrograph (RSS), High-Resolution Spectrograph (HRS), and SALTICAM, has its own simulator tool to estimate parameters for each observation—such as signal-to-noise ratio and exposure time—based on the input information regarding the targets.

When ready for submission, users employ the Principal Investigator Proposal Tool (PIPT) to submit their proposals before the deadline. A strong proposal clearly outlines the scientific objectives (the problem being addressed), the expected impact (how the observations will advance the field), and the observing strategy (justification for the choice of instrument and technical feasibility).

Submitted proposals are then evaluated by a Time Allocation Committee (TAC) based on scientific merit and technical feasibility. If accepted, proposals are allocated time according to a priority system:

Priority 0 (P0): These are programs or targets with the highest likelihood of being observed, typically including Targets of Opportunity (ToO) or time-critical observations.

Priority 1 (P1): This category includes the most scientifically compelling programs on the standard priority list (P1 - P3). Programs rated as P1 have a reasonable chance of being observed once scheduled.

Priority 2 (P2): Programs and targets in this category are considered compelling but are rated lower than P1

Priority 3 (P3): These programs receive the lowest assigned priority but are still worthy of consideration.

Priority 4 (P4): This includes programs or targets scheduled during marginal observing conditions or to fill the observing queue; they are generally shorter observation blocks. Time is not charged for P4 programs.

If a proposal is accepted by the TAC, users will submit observation blocks in Phase 2. These blocks correspond to observations that fit within the visibility windows. The observations are then added to a queue until they are conducted (or until the semester concludes) by SALT Astronomers and SALT Operators. Once the observations are completed, the data is transferred to Cape Town for primary pipeline processing. After processing is finished, users are notified via email about the availability of their data. For more information about SALT's capabilities and the proposal process, please refer to https://astronomers.salt.ac.za/ or email salthelp@salt. ac.za

