



Message from the President

Each of us is continuing to struggle in a world that has been turned upside down over the past year. The Covid-19 pandemic has forced all of us to confront unprecedented challenges. Amid this once-in-a-career set of challenges, AfAS has pivoted to meet the needs of our community during the turbulence and isolation of this last year.

While our AfAS2021 Virtual Conference was not the same as meeting physically the inaugural Annual Conference gave all of us the sense that we are part of a larger community. I found this sense of connectedness incredibly important at a time when we are physically isolated. We are happy about the good feedback that we received on the planning and execution of the meeting. The conference provided us with time to pause and reflect on the past year and the growth of AfAS since the March 2019 Astronomy in Africa meeting, and to look ahead to the future. The Executive Committee and the Secretariat will soon begin making plans for the 2022 Annual Conference and General Assembly and the first announcement will be issued in the months to come. We hope that our next conference will be in-person with a virtual element as well.

I would like to take this opportunity to congratulate the East African Astronomical Society (EAAS) for their successful 6th workshop that took place on 20 – 22 May 2021, the workshop aimed to promote and enhance the development of astronomy in the East Africa region, to create a platform in connecting young and senior scientific communities to share research findings as well as experiences. AfAS also collaborated with the International Astronomical Union Office of Astronomy for Development (IAU-OAD) to present a dedicated session entitled “Africa-EU Astronomy Collaborations: Towards the First IAU-General Assembly on the African Continent in 2024, and Beyond” during the Africa-Europe Science and Innovation Summit held virtually from June 14 to June 18, 2021, organised by the African-European Radio Astronomy Platform (AERAP).

Our strategy is guided by our long-term vision and efforts of the Executive Committee, the Secretariat, and various sub-committees. I am pleased to announce that the Secretariat has moved into office space provided by the South African Astronomical Observatory (SAAO) in Cape Town. In this regard, we are appreciative of all of the assistance provided by the SAAO since the relaunch of AfAS in March 2019. We have also appointed a full-time Head of Secretariat, Dr. Charles M. Takalana, who started at the beginning of our 2021/22 financial year on 1 April 2021. We continue to work with our Partner Projects (the African Planetarium Association (APA), the African Science Stars Publication (ASSAP), and AERAP) to deliver on the Society’s Mission, Vision, and Objectives. Thank you for all that you do for AfAS, and the advancement of Astronomy on the continent. Let us all commit to working towards advancing Africa through the promotion and advancement of astronomy as we move AfAS as well as our community into a new post-COVID era. We appreciate your continued support and would like to take this opportunity to wish all our colleagues and fellow astronomers good health and safe living during these uncertain times.

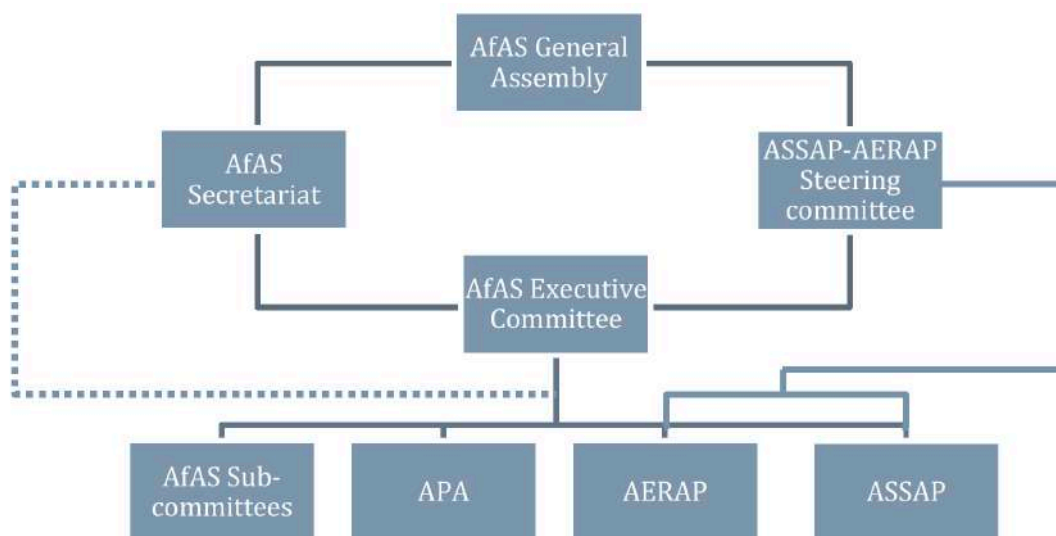


J. Mimouni
AfAS President



About AfAS

The African Astronomical Society (AfAS) is a Pan-African Professional Society of Astronomers. 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. The Secretariat of AfAS is currently hosted by South Africa through the Department of Science and Innovation (DSI) and our office is located at the South African Astronomical Observatory 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. Following this meeting, a whitepaper on the formation and the structure of the African Astronomical Society was drafted and disseminated. An Interim Working Group was formed to carry out the formation of the African Astronomical Society at the IAU Symposium in Ouagadougou. The initial Constitution of the African Astronomical Society (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, 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 South African Astronomical Observatory in Cape Town, South Africa. At that meeting, a revised Constitution was approved and accepted by delegates. Our Constitution can be found at <https://bit.ly/3qDhi86>. The AfAS Secretariat was incubated by the DSI from April 2019 to March 2020 and has been fully operational since April 2020.

AfAS2021: Inaugural Conference of the African Astronomical Society

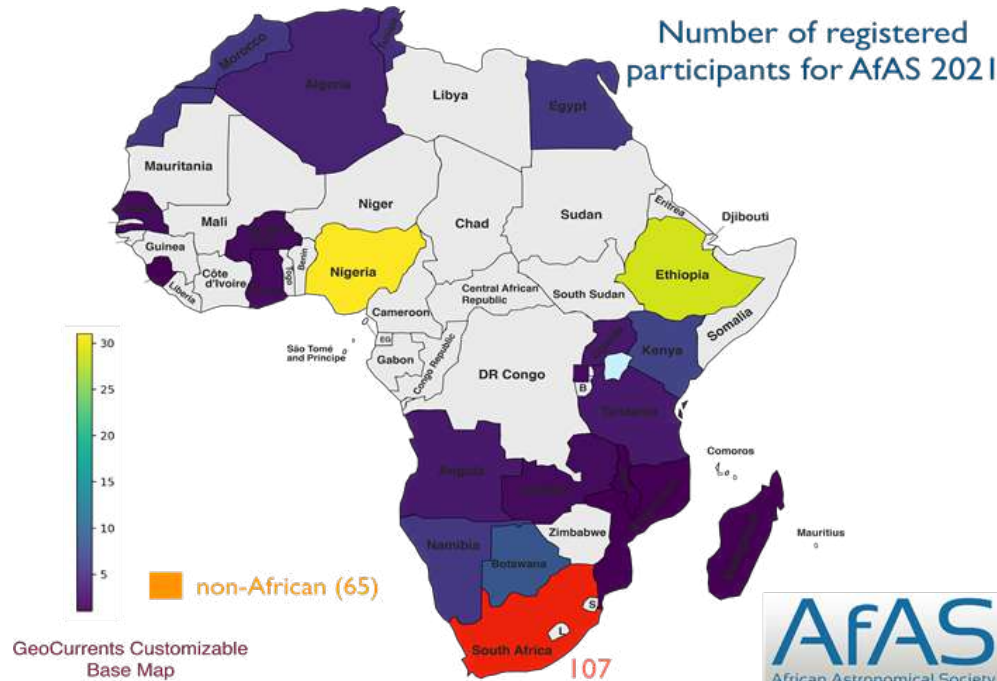


Figure 2: Map of registered participants for the inaugural conference of the African Astronomical Society

Over 300 astronomers and representatives of African Countries registered to attend the inaugural annual conference of the African Astronomical Society (AfAS). A total of 90 abstracts were accepted for talks, 50 science and 40 education, development, and outreach. The meeting was officially opened on 08 March 2021 with a welcome address by President Prof. Jamal Mimouni and a keynote address by the South African Minister of Higher Education, Science, and Innovation Dr. Bonginkosi Emmanuel Nzimande. The participants were also addressed by the African Union Commissioner for Human Resources, Science and Technology, H.E. Prof. Sarah Mbi Enow Anyang, the President of the International Astronomical Union, Prof. Ewine van Dishoeck, the Director-General for Scientific and Technological Research in Algeria, Prof. Hafid Aourag, and other prominent invited speakers. The diversity and quality of the presentations during the conference demonstrated that astronomy on the continent is vibrant, internationally competitive, and has the potential to expand and flourish even more into the future. There were four special sessions dedicated to:

- General discussion on the IAU General Assembly 2024 in Cape Town
- Science communication workshop
- African Network of Women in Astronomy (AfNWA): current status and way forward
- Amateur Astronomy Associations in Africa

The AfAS General Business meeting acknowledged the progress made by AfAS since the Astronomy in Africa meeting held in Cape Town, South Africa, at the South Africa Astronomical Observatory, from 25 to 26 March 2019. The AfAS General Business meeting also took note of the presentations on the status and vision of AfAS, from the various sub-committees which also proposed discussion points and calls for input.

During the business meeting, the amendments to the constitution approved by the executive committee were presented to the African community, in addition, there was a general call for inputs to the constitution, which is available at <https://bit.ly/3q-Dhi86>. Any inputs to the Constitution can be sent to the AfAS secretariat at admin@afasociety.org. The meeting acknowledged support and funding provided by the South African Department of Science and Innovation (DSI) and thanked all partners of AfAS from Africa and abroad including the International Astronomical Union (IAU), the African community, and participants of the conference for their support. We look forward to welcoming you all to the next conference and General Assembly in 2022.

C. Takafana & M. Nefwamondo
AfAS Secretariat

Memorandum of Agreement to Strengthen Development through Astronomy in Africa

The African Astronomical Society (AfAS) and the Office of Astronomy for Development (OAD) have signed a five-year partnership Memorandum of Agreement (MOA) that sees the two organisations collaborating towards bringing together complementary resources, networks, and expertise to advance development through astronomy throughout the African Continent.

“We are pleased to formalize an existing strong relationship with AfAS,” said OAD Director, Kevin Govender, who added: “Over the past decade the African continent has demonstrated beyond doubt its significant position in the global astronomy landscape. The rapid growth of this field of research combined with the energy and enthusiasm of the continent’s youth, as well as significant astronomy infrastructure projects on the continent, all make it time that this agreement to be signed between AfAS and the OAD.”

The agreement envisages areas of collaboration that include:

- The implementation of special calls for proposals such as the 2020 COVID-19 call for projects that use astronomy to mitigate the negative effects of the pandemic
- Coordination of communication networks in Africa.
- Coordination of fundraising related to the African continent.
- The organization, implementation, and legacy aspects related to the International Astronomical Union (IAU) General Assembly in 2024, which will be the first-ever held on the African continent.
- Other general areas of mutual interest in support of developing astronomy across the continent.

“It was just natural that both organizations join hands and work in synergy for the benefit of all the stakeholders to ripe societal and economic benefits by them bringing together their respective resources, networks, and expertise,” said AfAS President, Professor Jamal Mimouni, who jointly signed the agreement with Govender. AfAS will provide the necessary human resources and communications channels to develop, implement and promote joint initiatives with the OAD. As appropriate, AfAS will invite representation from the OAD on its various committees and subcommittees.

AfAS will also actively collaborate with the OAD and the National Organising Committee of the General Assembly 2024, to promote it and encourage active participation by African astronomers and students. The OAD will provide the necessary human resources and communications, logistics, and publicity channels to develop, implement and promote joint initiatives with AfAS. The OAD will also endeavour to synergize its fundraising activities, through the IAU fundraiser, and include, as appropriate, AfAS representation in its fundraising initiatives.

AfAS and the OAD are both funded and supported by the South African Department of Science and Innovation (DSI) and have always enjoyed a close working relationship. This MOA formalizes the partnership aimed primarily at strengthening development through Astronomy in Africa.

Issued on behalf of AfAS and OAD.

The Passing of Prof. Habatwa Mweene



Our community recently learned of the passing of Prof. Habatwa Mweene on 21 June 2021. Prof. Mweene served on the Southern African Regional Office of Astronomy for Development (SAROAD) Steering Committee as a representative of the University of Zambia where he was the Dean of the School of Mathematics and Natural Sciences. This is a tremendous loss for the community, and he will be remembered for his contributions to the development of the fields of Physics and Astronomy in Zambia and the continent. He also contributed to the Development in Africa with Radio Astronomy (DARA) and the Zambian SKA-AVN projects. AfAS remembers and offers heartfelt condolences to his family, friends, colleagues, and students.

The 6th East African Astronomical Society Workshop (EAASW)

20-22 May 2021

**Hosted by the Open University of Tanzania
and University of Dodoma**

EAASW was successfully held from 20-22 May 2021 at the College of Informatics and Virtual Education (CIVE)-UDOM. The theme of the conference was “Astronomy for Science and Social development”. The guest of honour was the Minister of education Science and Technology. Welcoming speeches were presented by OUT VC and UDOM VC.



The workshop received messages from supporters, collaborators and International Institutions supporting Astronomy such as: East Africa-ROAD, International Astronomical Union (IAU), Kenya Space Agency (KSA), South Africa Department of Science and Innovation (DSI), African Union Commission (AUC), African Astronomical Society (AfAS), Development in Africa with Radio Astronomy (DARA), Office of Astronomy for - Development (OAD) – Outreach (OAO) and Education (OAE), International Science Programme (ISP), European Astronomical Society (EAS), The African Astronomical Platform (AERAP) and South African Astronomical Observatory (SAAO).

The Conference was conducted in a hybrid mode for the first time in Tanzania i.e., online by zoom platform and physical attendance.

A total of more than 100 online participants from almost all the continents and more than 150 physical participants most of them being university students and staff from various Tanzanian Universities and associations including the Astronomy and Space Science Association of Tanzania (ASSAT).



During the two-and-a-half-day conference beginning at 9 am and ending at 7 pm a total of 17 invited talks, 60 papers and 11 posters were presented, and which addressed diverse astronomical issues such as: Extragalactic and Planetary Astronomy, Astrophysics, Astrobiology and Astrochemistry, Astronomy Education and Outreach, Dark Skies and Astrotourism, and Economic benefits of Astronomy for Social Development.

On the last half day, the Business Meeting of the East African Astronomical Society was conducted with elections of new office bearers.

Dr Noorali Jiwaji
Chairman, LoC EAASW
Open University of Tanzania



AfAS President's Activities

Despite the partial confinement and the quasi ban on public activities, the AfAS president was invited to give a series of presential lectures:

Three conferences at the French Cultural Institutes of Algeria (cultural centers under the French Ministry of Foreign Affairs):

- The French Institute (IF) at Constantine (March 25): "From Stardust ... to Citizens of the World"
- The French Institute of Annaba (April 1): "Multi-scale Cosmic Wanderings"
- The French Institute of Algiers (April 8): "The New Cosmos, 21st-century version"

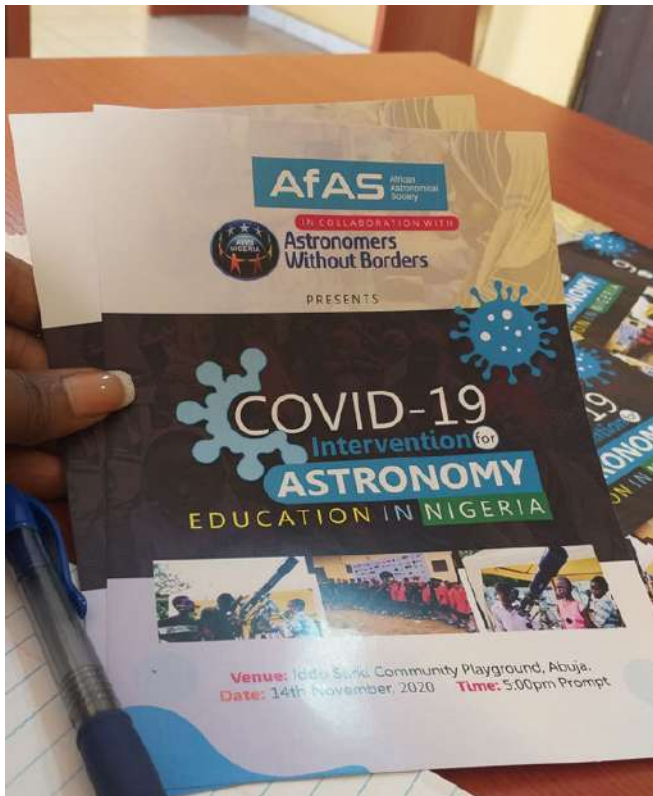


A conference at the Faculty of Political Sciences at Constantine-3 University April 14, 2021 (In Arabic): "What kind of Scientific Culture for the 21st Century?"

- In addition to several conferences online with associations and institutions from Tunisia, Mauritania, Jordan, Oman



Astronomy Education Outreach Program Organized by the Astronomers Without Borders (AWB) Nigeria in collaboration with the Education Committee of the African Astronomical Society (AfAS) held on the 14th of November 2020.



The event began at 17.00 hours with registration and distribution of face masks, hand sanitizers, and face shields. This was to enable the program to commence in compliance with Covid-19 safety measures. The participants, who are mostly school kids, were about 200, and over 40 adults, who listened to a talk on astronomy, had the opportunity to ask interesting questions about astronomy which the resource persons were on hand to offer comprehensive responses. The kids later participated in sun gazing with the solar glasses and were able to look through the telescopes for stargazing as the skies became darker. Relief materials consisting of foodstuff were handed over to every participant at the end of the program which lasted 2 hours 15 minutes.

O. A. Fagbemiro
AfAS: Public Relations and Education Officer

The Astronomy Education Outreach program was organized by the Astronomers Without Borders (AWB) Nigeria in collaboration with the Education Committee of the African Astronomical Society (AfAS). The event took place at the playground of Junior secondary school, Iddo Sarki, Iddo, a village on the outskirts of Abuja, Nigeria on the 14th of November 2020. The purpose of the Astronomy Education Outreach was to serve as an avenue to reach out to kids in the community during this period of lockdown as a result of the Covid-19 pandemic, to educate them and support them with some relief materials.





Glorious Africa

“Let us all unite and celebrate together”

The African Astronomical Society (AfAS) statement for the celebration of “Africa day” on 25th of May 2021

- **Can you imagine** a map of the World without Africa, Europe hanging above nothing, a sheer geographical aberration?
- **Can you imagine** the history of the World without Africa, its great civilizations starting with Ancient Egypt, Alexandria, and its marvels, the Mali and Songhai Empires, Carthage, those of Numidia, and Nubia, the land of the Ashanti, and many more?
- **Can you imagine** a map of the World economy without Africa, all those goodies, oil, minerals, agricultural products, manpower that have been for centuries exploited in unequal terms if not plundered, and which in large made the economy of the West what it is today?
- Can you imagine a human geography World map without Africa, with its 1.4 billion strong, young, vibrant individuals; with its wide basis's pyramid of ages while a good part of the world today lives on an inverted one?
- **Can you imagine** the world of science without Africa, its Southern African Large Telescope (SALT), High Energy Stereoscopic System (HESS), coming Square Kilometre Array (SKA) world-class facilities, and its budding scientific community?
- **Can you imagine** a world without Africa, with all it can contribute with its spirit of collective action, care for the weakest, ethical values, in the face of so much glorification of individualism, of moral degeneracy, and the loosening of family ties?
- **Can such an Africa-less world exist?** No, it cannot. Can Africa today contribute to today's world for the better? Yes, we can!

The road is fraught with pitfalls and challenges to overcome, but there is no turning back. For that to happen, let us rekindle the spirit of those African giants whose foresight and sacrifice have been milestones for us all. The vision of Kwame Nkrumah, one of the fathers of Pan Africanism, the martyrdom of the young lion Patrice Lumumba, the magnanimity and statesmanship of Nelson Mandela.

On this 25th of May, the African Astronomical Society (AfAS) is joining the other African countries and institutions in celebrating Africa Day, commemorating the 57th anniversary of the founding of the Organization of African Unity (OAU), the precursor of the African Union, making ours its devise: “Let us all unite and celebrate together”.

J. Mimouni
AfAS President

A Tribute to a Valiant Earth

On Earth Day 2021



- **Our Earth**, the humus from which we take our basic substance, and which nurtures us...
- **Our Earth** whose minerals were in a distant past along with their sister planets, cosmic dust produced in those prodigious stellar explosions that we call Supernovae...
- **Our Earth** that in our recklessness or for greed, we mismanage, pollute, destroy your ecosystems, brutalize...
- **Our Earth** on the surface of which some powerful iniquitous states oppress, imprison, deport, and abuse some of their inhabitants for their ethnicity, colour, gender, religion...
- **We salute** you on your special day and ask forgiveness for the multi-pronged aggression some Faustian dwarves living on your delicate biosphere are inflicting on you, hoping that you will be even stronger and more resilient than we thought you are...

Ameen.

J. Mimouni
AfAS President

AfAS Scholarships to the EAI FR Physics Institute in Rwanda

AfAS recently committed to contributing to higher education in Africa, especially during this pandemic, and responded positively to the need of EAI FR Institute in Rwanda to have more scholarships available to students selected to their program but who may not afford to attend the program. Thus, AfAS will provide one full and one partial one scholarship to selected Master students from the African continent who will be working in astrophysics or related topics. This contribution will certainly help this budding institution in its ambition to become the top physics center for advanced education and research in the region. EAI FR is a partner institute of the Abdus Salam International Centre for Theoretical Physics (ICTP, <https://www.ictp.it>), and a Category 2 UNESCO institute. This translates the commitment of AfAS to consolidate academic institutions on the continent, particularly those related to astronomy.



J. Mimouni
AfAS President

Africa Planetarium Association Meeting Report

On 29th April 2021 African Planetarium Association APA held a 2-hour virtual meeting inviting new and potential members to learn more about APA.

The meeting aimed to inform members about APA, what we have achieved so far, and our plans. We also introduced the members to our board members and projects. Discussions with potential APA partners AfAS, OAD, and IAU were held on how we can work together to further science and development through the planetarium world.

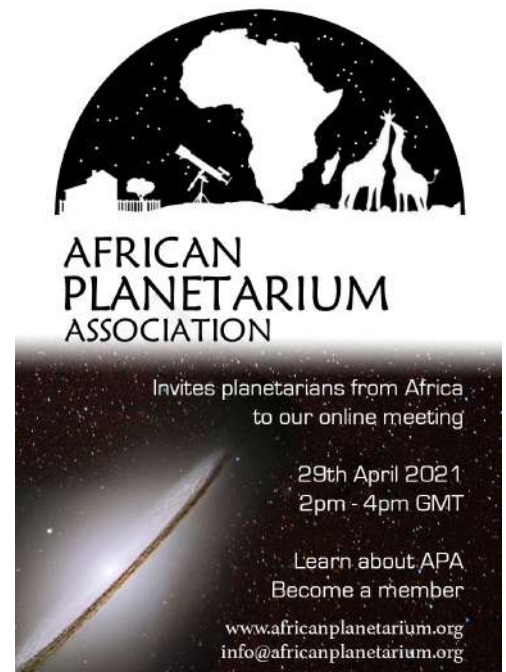


Figure 3: Poster for the APA virtual meeting held on 29th April 2021

Members from across Africa attended the meeting, including South Africa, Namibia, Nigeria, Kenya, and Algeria. Amongst the participants present were Mr. Takalani Nemaungani from DSI South Africa, International Planetarium Society IPS president Kaoru Kimura, and president-elect Micheal McConville. Also in the meeting were the director of OAD Kevin Govender and the President of AfAS Dr. Jamal Mimouni.

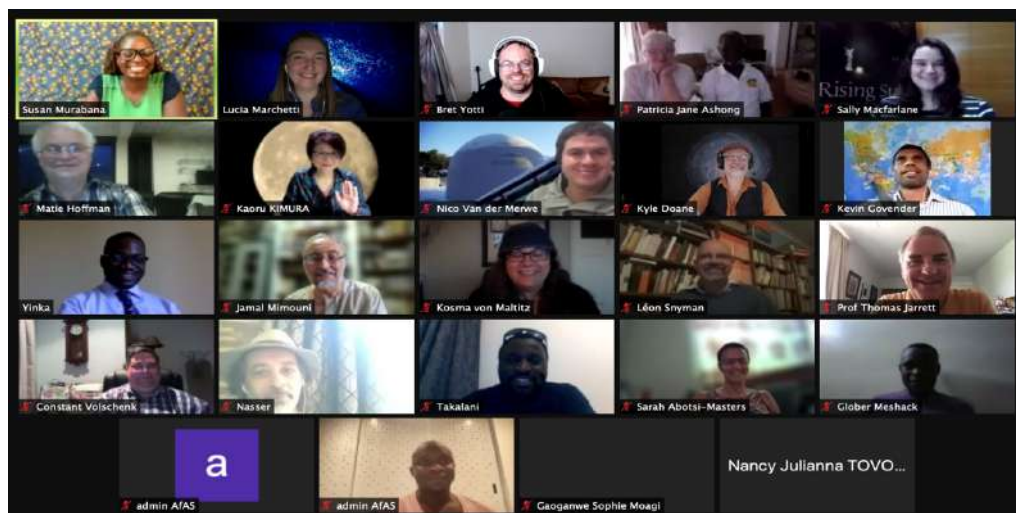


Figure 4: The photo was taken during the APA virtual meeting held on 29th April 2021

After the meeting, we were able to increase our membership and invite members to our different working groups. We will be reaching out to our members in the coming weeks to invite them to join the working groups and contribute to the development of APA.

“As planetarians, we play a huge role in disseminating ideas and concepts through a powerfully immersive experience and therefore play a vital role in inspiring the next generation of scientists.”

Susan Murabana Owen
President APA

An Open Letter: To Astronomy Departments, Institutions and Societies: Adopt Sustainability as a Primary Goal

We, astronomers, astrophysicists, and global citizens recognize the urgency of the climate crisis and our impact on it. We also recognize that we have the power to change our current practices. We call on astronomical institutions worldwide to set an example for the field in mitigating our contribution to climate change: naming sustainability as a primary goal, putting in place specific sustainable practices to lower carbon emissions, and communicating these changes both to their members and the general public.

Comprehensive scientific evidence demonstrates that we are living in a climate emergency that calls for urgent action [1,2]. Both the Paris agreement [3] and the 2020 United Nations Emissions Gap Report [4] outline the imperative to halt global heating and ocean acidification. Only by immediately effecting a significant and continuous reduction in global emissions can we achieve this goal. Without doing so, we will face both a biodiversity crisis through mass extinctions and a humanitarian crisis from increasingly inhospitable living conditions [5]. At our current rate of emissions – even despite the Covid pandemic [6] – we are failing to prevent this disaster [1].

Astronomers rely heavily on fossil fuel energy for computation, telescope operation, and travel. Our work practices, therefore, create a large carbon footprint [7]. The climate crisis also threatens to negatively impact ground-based astronomical observing conditions [8]. If the future of astronomy is to be safeguarded, we must acknowledge the ongoing environmental crisis and our role in creating it [8,9,10,11]. We have the power to change our practices, raise awareness, and work together towards climate solutions.

As members of the scientific community, we stand behind the scientific evidence of anthropogenic climate change. We acknowledge the impact of astronomy research on the climate and vice versa, and we commit to rapid decarbonization of the field. We accept the responsibility associated with our trusted position in educational systems and society to raise awareness of the uniqueness and fragility of our home planet. We no longer have time to adopt small, incremental changes to our working practices. Environmental sustainability must form a core component of current and future astronomical endeavors, as well as in our lives.

We thus call for:

- Astronomical departments, institutions, and societies across the globe adopt sustainable practices.
- Astronomical societies and unions to include environmental sustainability as a primary goal in their constitutions.
- The above changes to be widely communicated both within and outside the field. The climate crisis reaches beyond country borders and individual communities. We urge the astronomical community to stand together and lead by example. The time to act is now; there is no Planet B. for more information and how to provide your signature please visit <https://astronomersforplanet.earth/open-letter>.

Signed:

Astronomers for Planet Earth

News From Across Africa

The 10th National Astronomy Conference- Nigeria, Nov. 2020

AfAS was a partner in the 10th National Conference, organized by the Astronomical Society of Nigeria, November 24-27, 2020, in Kogi State, Nigeria. This conference saw the participation of many scientists from Nigerian and beyond, as well as a significant number of students focused on "Astronomy and Space Science Research in Post COVID-19 Era in Nigeria". The AfAS president gave the keynote address on the opening day as well as delivered a plenary lecture.

**ASTRONOMICAL SOCIETY OF NIGERIA (ASN)**
Announces her

10th NATIONAL CONFERENCE

Theme:
ASTRONOMY AND SPACE SCIENCE RESEARCH IN POST COVID-19 ERA IN NIGERIA

Date:
24th - 27th
November, 2020

Venue:
NASRDA-Centre for Atmospheric Research
Ayingba, Kogi State

Conference Registration

ASN Members	N10,000.00
Non Members	N12,000.00
Students	N3,000.00
Corporate bodies	N20,000.00

SUB THEMES:

- Astronomy and Astrophysics
- Particle Physics, Relativity and Cosmology
- Satellite Communication and Remote Sensing
- Geodesy and Global Positioning Satellite (GPS) Technology
- Planetary and Atmospheric Physics
- Astronomy and Space Science Education and Public Outreach
- Data Mining
- Observational Technique
- Chemistry and Biology in Space

KEYNOTE SPEAKERS:

DR. RANDALL SMITH
Harvard-Smithsonian Center for Astrophysics, Harvard University, MA, USA

PROF. JAMAI MIMOUNI
President
African Astronomical Society

PROF. FRIDAY BARIKPE SIGALO
Dept. of Physics, Rivers State University
Port Harcourt, Nigeria.

Soft copies of abstracts should be submitted to:
asnconferences@gmail.com
on or before 7th November, 2020

Chief Host:
Prof. A.B Rabi
Director NASRDA-CAR

Host:
Prof. A.A. Ubachukwu
President ASN

Prof. R.N.C Eze
Chairman SOC
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Dr. C.N. Ofodum
Secretary SOC
08037630603

The “Astronomie- Afrique” magazine for French-speaking amateurs

The year 2020 has seen the birth of the magazine *Astronomie- Afrique*, an online astronomy magazine dedicated to French-speaking African astronomy amateurs and is published by the French Astronomical Society (SAF)- <https://lastronomieafrique.com>. This magazine with its high-value content organized in a variety of headings is written by volunteers from the SAF as well as African astronomers. AfAS is a partner and the AfAS President is on the editorial board. It is certainly a welcome addition to the shortlist of media dealing with astronomy on the continent.

The “Sirius Science Magazine” from North Africa

A new Astronomy Magazine the *Sirius Science Magazine* has been launched from North Africa, dedicated to an Arabic speaking audience. 14 of the 54 African countries speak Arabic fluently or partially and this initiative will go some way into educating and entertaining the Arabic speaking readership and providing some level of astronomical culture. Its last issue contains a good-sized article on AfAS as well as a lengthy interview with Sarah Abotsi-Masters, the general secretary of AfAS, discoursing on the astronomical perspectives and ambitions of Africa.



Figure 5: Latest issue (April 2021) of “Sirius Science magazine”, the flagship journal of the Sirius association.

Capdel: A Concentrate of Science for Primary Schools with Sirius

The Sirius astronomy association is involved in the latest CapDeL program (Participatory Democracy and Local Development) where it oversees the implementation of scientific activities. This operation is the result of a partnership between the Algerian Ministry of the Interior, Local Authorities and Regional Planning, and the UNDP (United Nations Development Program) with the support of the European Union. Its goal is: “the promotion of concerted and transparent local governance, the strengthening of social cohesion and the emergence of a supportive and diversified local economy”.



In this first phase of the campaign, the specific contribution of the Sirius Association consists of organizing weekly scientific animation activities conducted by 12 volunteers from our association for the six pilot primary schools in the municipality of EL-Khroub. The workshops cover all sciences in particular astronomy and promote civic spirit as well as respect for nature (Climate, biodiversity, sustainable development, etc.). The latest activity on 29 May 2021 was a big astronomical and sports event involving some 200 school kids with planetarium shows for all.



Figure 6: Scientific activities in schools with the CapDel project supervised by Sirius animators

North Africa, Monday, June 21, 2021

Like every year a network of astronomy associations and clubs reenact the measurement of the Earth radius on the summer solstice done by the African polymath Eratosthenes some 2200 years ago.

The collective rehearsal of this historical experience has many pedagogical virtues. We recall that Eratosthenes was a scholar born in Libya now who stayed most of his life in Alexandria. He was one of the foremost scholars of the Hellenic civilization whose throbbing heart was Egypt and in particular the city of Alexandria. This collective experience is organized in various countries. The two largest events took place in Algeria (organized by the Sirius Association of Astronomy) and in Alexandria, Egypt (Bibliotheca Alexandrina). Other similar events took place with partners in Algeria and from around the world. It aims to create public awareness on the value of science and its educational significance.

The Sirius Astronomy Association Program At Constantine, Algeria

Eratosthenes was able to deduce the radius of the Earth by simultaneously measuring the height of the Sun of Alexandria and Aswan further south, knowing that at this time that the Sun was at the zenith in Aswan. This measurement of remarkable precision for the time has an immense historical and epistemological significance since it made it possible to fix the size of the Earth which later made it possible to establish the dimensions of the Solar System and then of our Universe.

The program, which took place at the Ahmed Saadi Youth Center at Filali, Constantine, consisted of lectures, theater play. It was followed by a direct measurement by the public organized in 10 teams of the Sun's shadow during the passage through the meridian and deduction of the Earth's radius. The measurements lead to values ranging from 37.500km to 43.000km and averaging to a little bit less than 40.000km.



Notice that from Algeria, the Zargala Astronomy Association at Médéa, and associations and individuals at Guerara and Tamanrasset did also organize public events on that day and were part of a network under the Sirius association coordination.



At Bibliotheca Alexandrina in Alexandria, Egypt, Dr. Omar Fikri, head of the Planetarium section there organized, as every year, a well-attended public event. He reported the following:

More than 150 students attended the program, along with some of their parents. The program included a scientific play, an interactive scientific presentation, a scientific lecture on the experiment and how to measure the Earth's diameter.



A group of students from Aswan participated with the students of the Bibliotheca Alexandrina in the location of the well on which Eratosthenes relied in the idea of the experiment.

J. Mimouni
AfAS President

AfAS Science Committee

The early career working group

Working under the umbrella of the science committee, the early career working group successfully held its first meeting in November 2020. This working group is established to focus on topics that are crucial to early careers in Astronomy & Astrophysics across the African continent and to implement activities and initiatives that will support early careers excel in their research and progress along their professional paths in academia and beyond.

As the early career representative officer, Dr. Zara Randriamanakoto who is a Malagasy postdoctoral fellow based at the South African Astronomical Observatory in South Africa is the current chair of the working group composed of seven young astrophysicists working in research institutions and universities across Africa.

The 2021 call for a seed research grant is one of the flagship programs designed by this working group to support research projects in astronomy (including Astrophysics and Space Science) conducted by postgraduate students and/or early career researchers based in Africa.

Z. N. Randriamanakoto

AfAS Early Career Representative Officer



AfAS

African Astronomical Society

MEET OUR EARLY-CAREER WORKING GROUP



Zara Randriamanakoto

AfAS Early-Career Representative Officer

SAAO/University of Antananarivo

Madagascar/South Africa



Salma Sylla Mbaye

Université Cheikh Anta Diop
Senegal



Mohamed Darwish

National Research Institute
of Astronomy & Geophysics
Egypt



Sihem Kalli

Mohamed Boudiaf University
Algeria



Naftali Kimani

Kenyatta University
Kenya



Sarah White

SARAO/Rhodes University
UK/South Africa



Sié Zacharie Kam

Joseph KI-ZERBO University
Burkina Faso

AfAS 2021 Seed Research Grant Winners Announced

The AfAS Seed Research Grant is one of the flagship programs designed by the Early-Career working group to support research projects in astronomy (including Astrophysics & Space Science) conducted by postgraduate students and/or early career researchers based in Africa.

AfAS Executive Committee is pleased to announce the inaugural laureates of the AfAS Seed Research Grant for 2021. Out of the 11 candidates who submitted their research proposals by the due date,



Dr. Hambeleleni Davids, Lecturer at the University of Namibia, Namibia, “Modelling globular clusters as multi-wavelength emitters”.



Mr. Trust Otto, Ph.D. Student at the Mbarara University of Science & Technology, Uganda, “Am Stars with Hump and Spike features in their amplitude spectra”.



Ms. Mavis Seidu, Ph.D. Student at the Centre for Space Research North West University, South Africa, “Triggered Star Formation Rate in the Milky Way”.



Mr. Ambrose Eze, Ph.D. Student & Assistant Lecturer at the Godfrey Okoye University, Nigeria, “Accretion flow and mass accretion rates/fluctuations in a Blackhole candidate: MAXIJ1535-571”.

AfAS and its Early-Career working group congratulate all these laureates and wish them success in their academic careers. Each winner will receive a seed grant of \$1,000 that can be used for international and domestic travel, lodging, computer equipment, and other research-related expenses.

Z. N. Randriamanakoto
AfAS Early Career Representative Officer

Outreach Committee – expanding our scope.

Strengthened by the collaborative work done during the annular solar eclipse in June 2020, the Outreach Committee has continued to support outreach practitioners across Africa. We now have two Working Groups and two language-based networks. The two Working Groups are on 'Affordable Mobile Planetaria' and 'Amateur Radio Telescopes'. The planetarium group has been working on selected designs of cheap mobile versions and has been at the stage of prototyping the optimal ones. These have been chosen to keep in mind the infrastructural and financial constraints of our community. The group also organized an online public seminar, where four of the members presented their work on various models. The radio telescope group is now putting together a list of tested designs which are aimed at amateur astronomy clubs and university students. In addition, we have also supported the formation of two networks, one for French-speaking outreach Africans, and one for Portuguese speakers. The former organized an online webinar on the Nobel Prize 2020 and the latter has been involved in translations.

The 2020 Nobel Prize in Physics was awarded to Roger Penrose, Andrea Ghez, and Reiner Genzel for their work on black holes and the massive specimen in our Galaxy's center. Since this was of wide popular interest, we organized a public webinar with various experts from the continent to explain the work behind the Nobel. Including the live session and the video on YouTube, more than 1000 people have seen it so far. A similar program was also organized in French, as mentioned earlier.

The Great Conjunction of Jupiter and Saturn on 21 December 2020 was well suited for a campaign that could rely on naked-eye observations. We created 3 poster series in English for the event. The outreach community across Africa came together to produce translated versions in Arabic, French, Kiswahili, Portuguese, isiXhosa, and isiZulu. These were shared widely on social media and were well received. The ones in English, French, and Portuguese were also used outside Africa.

We had circulated an online questionnaire to gather information about amateur astronomy associations in Africa. These were made available in English, Arabic, French, and Portuguese. We have received more than 60 entries from across the continent and we are now releasing an online interactive map for them. We also organized a special session for amateur astronomers during the AfAS 2021 meeting, where the participants discussed the need for an Africa-wide network, and our committee will help take this forward.

We have proposed an ambitious pan-African project of building a to-scale Solar System across Africa, with the Table Mountain in Cape Town as the Sun, and the orbit of Neptune passing over northernmost Africa. We have also chosen their orbits and those of major asteroids and comets such that every country hosts at least one celestial body. We envisage that each country has an astronomy and science center at these locations, networked together. This is being discussed as a possible flagship project of the IAU General Assembly 2024 outreach efforts.

Lastly, we are happy to announce the induction of seven new members into the Outreach Committee. Apart from Jamal Mimouni, Sarah Abotsi-Masters, Olayinka Fagbemi, Niruj Mohan Ramanujam (chair) and Kevin Govender (advisor), we now have Alimamy Conteh, Jerusalem Teklu, Marco Romero, Merouane Alikhoudja, Mike Simmons, Nnaemeka Onyeuwaoma and Priscilla Muheki.



AfAS
African Astronomical Society

AfAS Outreach Committee & APA

Seminar on
Portable Planetariums
Innovations for Africa

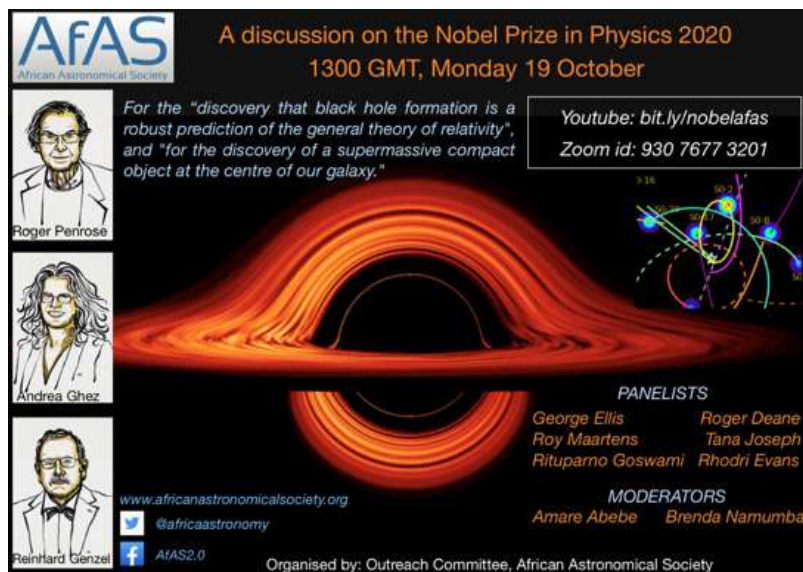
ندوة حول ابتكارات القباب السماوية المتنقلة لأفريقيا
Thursday October 08, 16:00 - 17:30 GMT
18:00 - 19:30 CAT

- The Nairobi Bambou Planetarium**
Susan Murahana and D. Chu Owens
- Outreach with a portable Planetarium: The CCC**
H. Guengouri & J. Mimouni
- Virtual visits to the Sutherland Planetarium and Zizi's portable planetarium**
Nico Van der Merwe and Abdelatif Zizi

Thursday 08/10/2020
16:00-17:30 UTC
18:00-19:30 CAT

World Space Week OCTOBER 4-11

ZOOM Meeting ID
860 3233 9844



AfAS
African Astronomical Society

A discussion on the Nobel Prize in Physics 2020
1300 GMT, Monday 19 October

For the "discovery that black hole formation is a robust prediction of the general theory of relativity", and "for the discovery of a supermassive compact object at the centre of our galaxy."

Youtube: bit.ly/nobelafas
Zoom id: 930 7677 3201

PANELISTS
George Ellis, Roy Maartens, Rituparno Goswami, Roger Deane, Tana Joseph, Rhodri Evans

MODERATORS
Amare Abebe, Brenda Namumba

Organised by: Outreach Committee, African Astronomical Society

The picture on the left shows a seminar organized by the Affordable Mobile Planetarium Working Group of our committee and the picture on the right shows the webinar (in English) on the 2020 Nobel Prize in Physics.



GREAT CONJUNCTION OF 21 DEC 2020
What's it all about?
LA GRANDE CONJUNCTION DU 21 DEC 2020
Pourquoi tout est intéressant?
NUTANO KANABHE ANGARI
USUHO NA 21 DESEMBER 2020
Ni kama gani hiki?
GRANDE CONJUNÇÃO DE 21 DE DEZEMBRO DE 2020
O que é tudo isso?
الاقتراع الكبير
21 ديسمبر 2020
ما الذي يحدث؟
ZINGANASHINI ANABELE NANYE
RUZERANGELA 21 DESEMBER
Kumayelana nani?
ISIKRAT CONJUNCTION VOMHILA
MAMA 21 DESEMBER 2020
Ingantoni na?

GREAT CONJUNCTION OF 21 DEC 2020
How can we see it?
LA GRANDE CONJUNCTION DU 21 DEC 2020
Comment pouvons nous l'observer?
NUTANO KANABHE ANGARI
USUHO NA 21 DESEMBER 2020
Sim tutalimango?
GRANDE CONJUNÇÃO DE 21 DE DEZEMBRO DE 2020
Como podemos ver essa conjunção?
الاقتراع الكبير
21 ديسمبر 2020
كيف يمكننا رؤيته؟
ZINGANASHINI ANABELE NANYE
RUZERANGELA 21 DESEMBER
Singayibona njani?

GREAT CONJUNCTION OF 21 DEC 2020
Is this the only one?
LA GRANDE CONJUNCTION DU 21 DEC 2020
Est-ce la seule conjonction?
NUTANO KANABHE ANGARI
USUHO NA 21 DESEMBER 2020
Ino kutano hili na la kupelana?
GRANDE CONJUNÇÃO DE 21 DE DEZEMBRO DE 2020
Essa é a única conjunção que veremos?
الاقتراع الكبير
21 ديسمبر 2020
هل هذا هو الوحيد؟
ZINGANASHINI ANABELE NANYE
RUZERANGELA 21 DESEMBER
Inobhe nithetha kwelakho?
ISIKRAT CONJUNCTION VOMHILA
MAMA 21 DESEMBER 2020
Yiyo kuphela kusini na?

Our posters in 7 languages on the Great Conjunction of Jupiter and Saturn on 21 Dec 2020.



The orbits of planets (in red) and other minor bodies to scale across Africa (Top) and the Map of more than 60 amateur astronomy associations across Africa (Bottom)

N. M. Ramanujam
AfAS Outreach Committee Chairperson

Introduction to the African Network of Women in Astronomy (AfNWA-AfAS)

The African Network of Women in Astronomy (AfNWA-AfAS) 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 improving the status of women in science in Africa and using astronomy to inspire more girls to do Science, Technology, Engineering, and Mathematics (STEM).

AfNWA was established in September 2020 as one of the committees under AfAS and publicly launched in January 2021. By now, we have ~ 90 members under the Network from 30 different countries, where ~ 80% are women and ~ 20% are men. AfNWA objectives cannot be achieved without the full support and participation of the whole society, and therefore the participation of men is very welcome. More than 80% of AfNWA members are early-career researchers, MSc and Ph.D. students. With AfNWA we want to bring support to all of these young women in science and make sure that they remain in science in the long term.

Over the past months, AfNWA team members gave several presentations about the Network at different conferences including the AERAP Women in Science meeting, IAU symposium 367 on Education and Heritage in the Era of Big Data in Astronomy, and Africa-Europe Science and Innovation Summit. AfNWA also hosted two special sessions on women in science during the AfAS virtual annual meeting and the 6th East African Astronomical Society Workshop. To strengthen the professional skills of young researchers, AfNWA organized two virtual pieces of training in April on CV writing given by Dr. Carolina Ödman and in May on 'How to prepare an impactful presentation' given by Dr. Jacinta Delhaize.

To get more information about AfNWA and to become a member please visit:
<https://www.africanastronomicalsociety.org/afnwa/>

**Sincerely,
AfNWA team**

Calls and Upcoming Events:

SALT: CALL FOR PHASE 1 PROPOSALS

SALT Astronomy Operations are now accepting SALT Phase 1 proposals for the period 1 November 2021 - 30 April 2022 (2021 Semester 2).

The Phase 1 proposal deadline is Friday, 30 July 2021, at 18:00 SAST (corresponding to 16:00 UTC).

This proposal call is for SALTICAM, RSS, and HRS. All details of the status of specific instrument modes are available in the Call for Proposals link below, including changes from previous semesters.

Please submit your proposal via the SALT Principal Investigator Proposal Tool (PIPT). Instructions, software, and other information about proposing for SALT can be found on the SALT website.

Call for Proposals, including the link to information document: <https://astronomers.salt.ac.za/proposals/>

Instructions for submitting your proposal: <https://astronomers.salt.ac.za/proposals/phase-i/>

Download the PIPT software: <https://astronomers.salt.ac.za/software/#PIPT>

All questions regarding this proposal call should be addressed to: salthelp@salt.ac.za

**Sincerely,
SALT Astronomy Operations**

ONLINE EVENT



JULY
22 to 23
2021

ASTRONOMY DISCOVERY DAYS IN TOGO (JDA-TOGO)

Theme

Astronomy, education and sustainable development

PROGRAMME

Conferences-debates

Presentations

Workshops

Infoline

+228 93 21 50 14

+228 99 92 93 71

astronomietogo@gmail.com



L'ASTRONOMIE

AfAS
African Astronomical Society

IAU

Save the date!

27-29 October 2021:

Forum on Astronomy in Africa and the IAU GA2024

The International Astronomical Union, which has been in existence for over 100 years, is the world's largest body of professional astronomers. Every three years it holds a General Assembly, bringing together astronomers from around the world. This meeting will take place for the first time on the African continent in 2024. Cape Town has been selected to host the meeting, and the National Research Foundation (NRF) is the official host organisation. In preparation for this event, it is essential to bring together the African astronomical community to discuss how the continent can maximally benefit from this unique opportunity as well as how best to facilitate participation by countries in Africa.

Format: Virtual Forum for African astronomy community

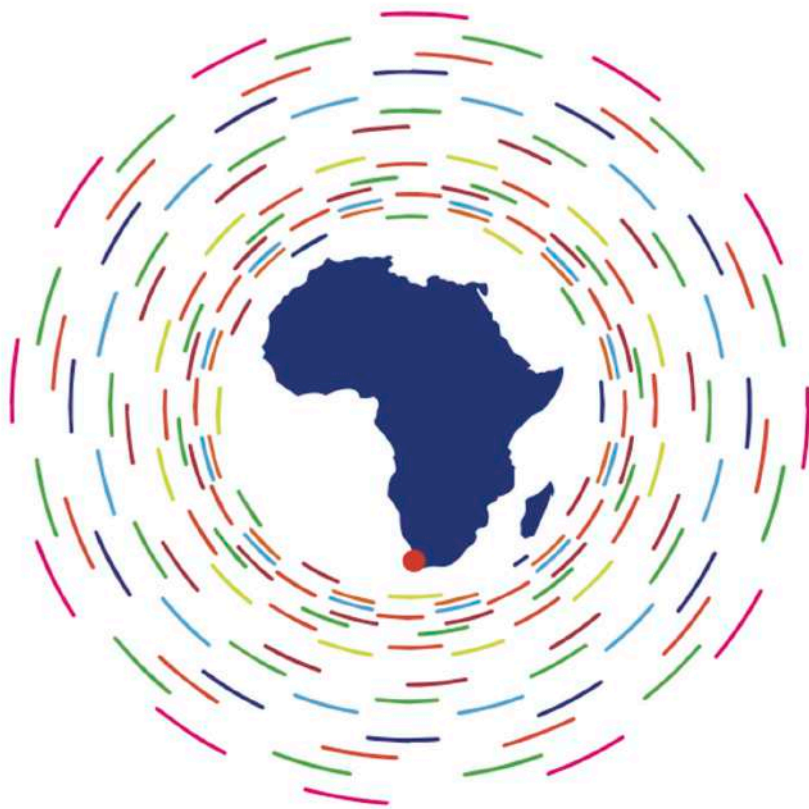
Date/Duration: 27 – 29 October 2021 (3 days)

Venue: Online

Purpose: Engage the African Astronomy community, obtain commitment on participation and appoint country ambassadors

We will soon publish a draft programme and open registrations.

Save the date!



XXXII GENERAL ASSEMBLY

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5 - 16 AUGUST 2024
CAPE TOWN, SOUTH AFRICA

www.astronomy2024.org