

# Astronomy Outreach in Sudan:

## A Current Overview

Tamador K M Aldowma



# CAPP

Centre for Astro-Particle Physics



AfAS annual conference  
23 March 2026



Omdurman - Sudan

# Outline

## Brief History

- Overview of astronomy outreach

## Astronomy Outreach in Sudan: Institutional Efforts

- Sudanese Astronomical Society
- World Space Week in Sudan
- IAU Outreach Astronomy Sudan Office

## Personal Contribution

## Summary and Future Directions



# Brief History

- The roots of astronomy in Sudan trace back to the Kingdom of Kush (Meroitic period).
- An ancient astronomical observatory was discovered at **Meroe in 1914**.
- Since the early 20th century, physicists at the University of Khartoum have contributed to astronomy, astrophysics, and cosmology.
- Mahjoub Obeid Taha (PhD, University of Cambridge, 1967) was a leading Sudanese particle physicist and cosmologist.
- In 2008, Omdurman Islamic University established the first undergraduate program in Sudan dedicated to Astronomy and Meteorology (B.Sc., 5 years).





# Sudanese Astronomical Societies



# World Space Week in Sudan



**Prof. Moutaman Mirghani**

Research Professor at the National Centre for Research (NCR).



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

أسبوع الفضاء العالمي في السودان  
World Space Week in Sudan 2025

10 - 4 أكتوبر 2025

تحت شعار

**الحياة في الفضاء**



**Pervious > Former Director :**  
Institute of Space Research and Aerospace  
(ISRA)

# World Space Week in Sudan

We started **2019**, the main objective of Sudanese Annual Astroinformatics School SAAS is to introduce the basic knowledge, tools and skills required for doing Astroinformatics related research, and provide hands-on experience in astronomical data processing, visualizing and analysing for undergraduate and graduate students (Astronomy and Physics).

**2019 - 2020 - 2021**

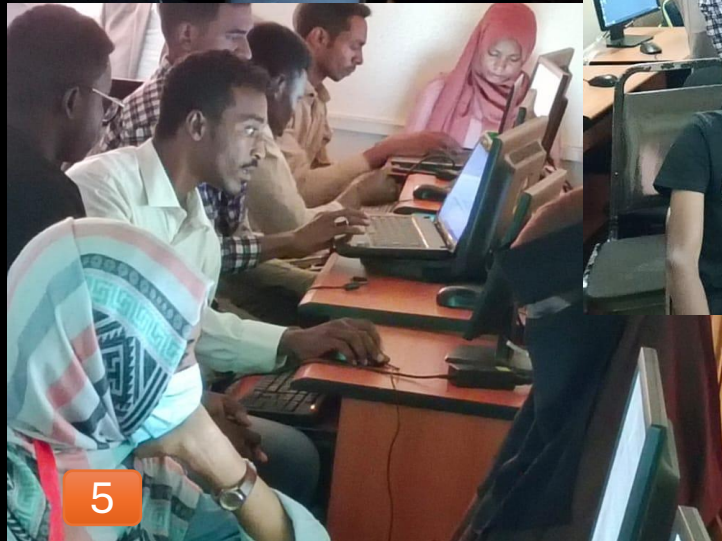
**2022**

**Zamzam outreach  
Program  
Funded by 2024  
VISION grant**



**Zamzam refugee camp  
in North Darfur**

<https://www.facebook.com/people/Sudanese-Annual-Astroinformatics-School-SAAS/>



# IAU Outreach Astronomy Sudan Office, NOC Sudan Activities

**Mohamed Yahia Alradi**

**Main Director**

**PhD student:**

Instituto Nacional de Pesquisas  
Espaciais - INPE/CRS, Brazil



## **Astronomy Outreach & Community Impact**

- Interactive school lectures promoting scientific literacy and STEM interest
- Public telescope observations connecting people with the night sky
- Accurate lunar calendar calculations supporting institutions and communities
- Participation in global initiatives (e.g., World Space Week)
- Digital platforms simplifying astronomy and expanding science access

## **Impact:**

- Advancing astronomy awareness, supporting education, empowering youth, and strengthening science for sustainable development.

## **Program Leads:**

Mohamed Yahia Alradi • Alnazeer Ishag Haroun • Dr. Abubaker Yagoub

# IAU Outreach Astronomy Sudan Office



# Personal Contribution

## Dr. Abubakar Yacob

### Researcher:

Institute of Space Science (ICE-CSIC)  
& Autonomous University of Barcelona (UAB)



**Founder :**  
**Photon SCNSM**  
Photon Scientific Centre for  
Natural Sciences and  
Metaphysics



  
[@zoolastroofficial](https://www.tiktok.com/@zoolastroofficial)

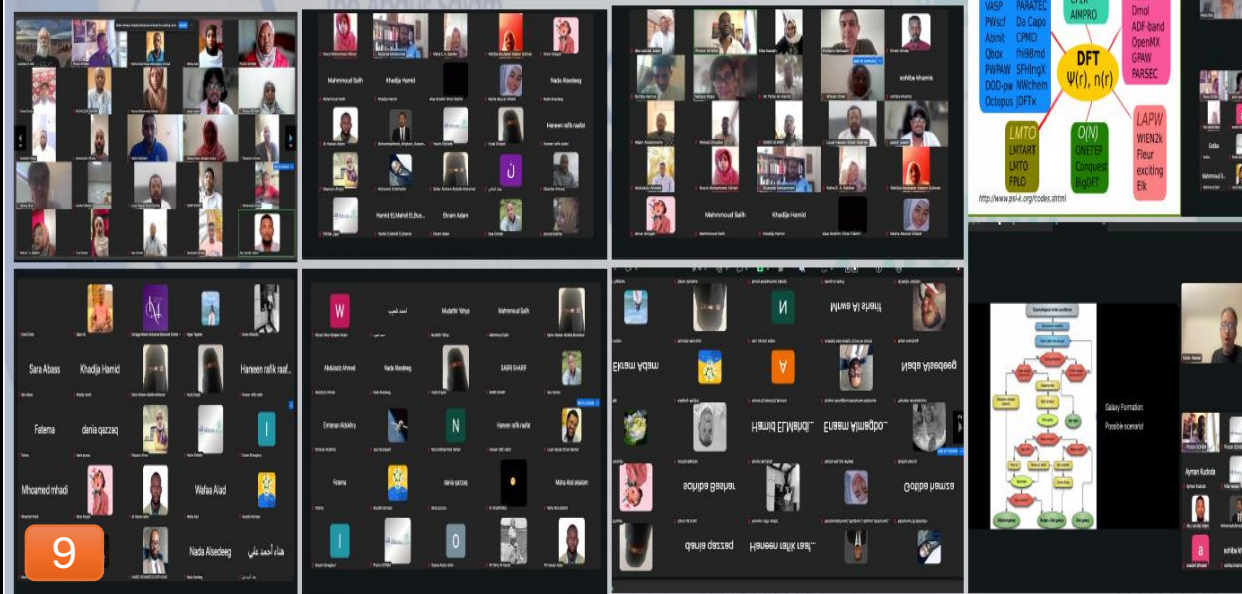


# Personal Contribution

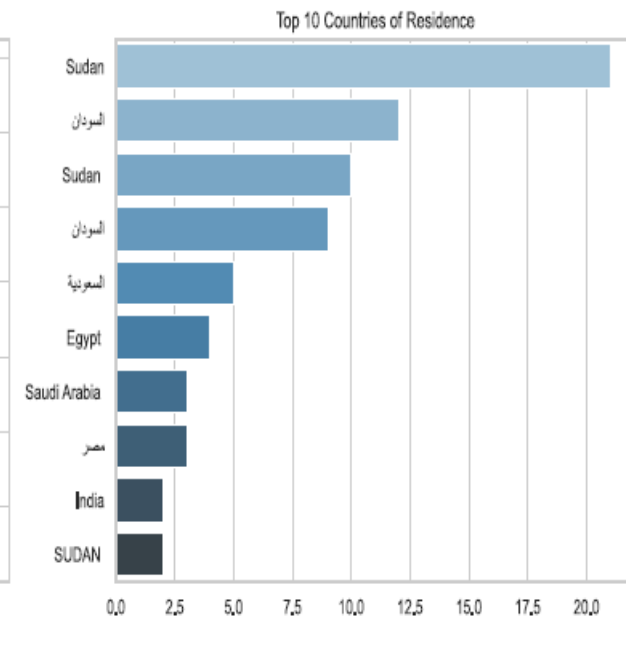
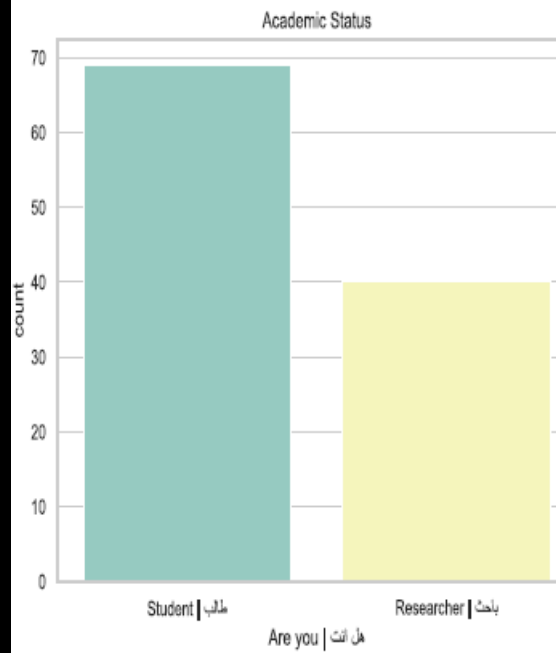
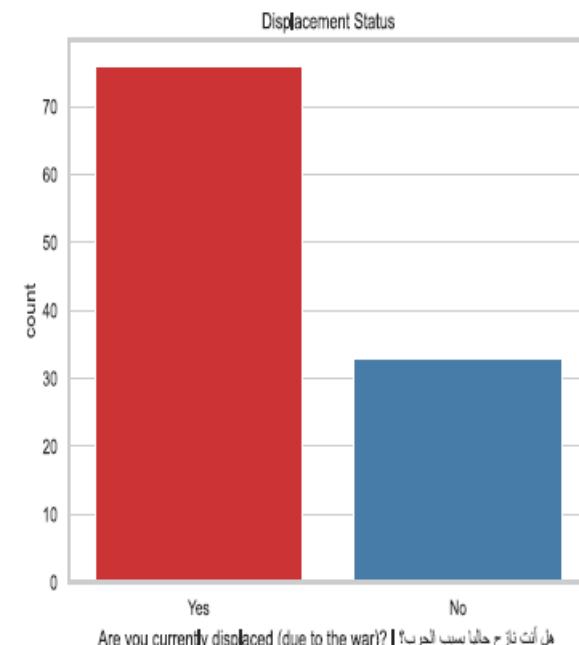
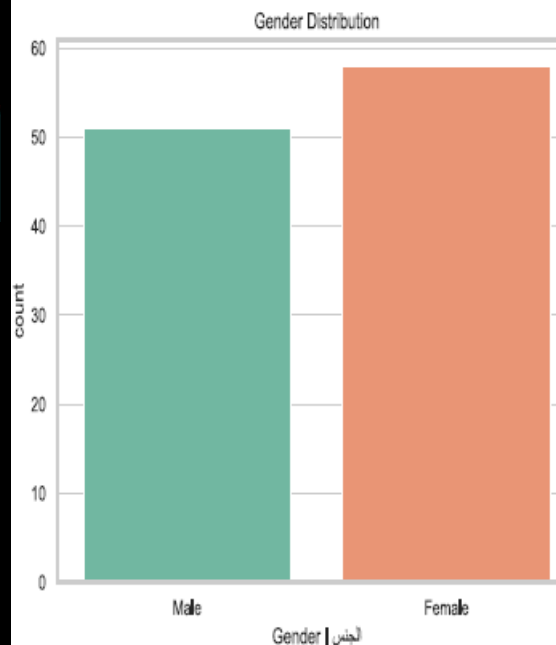


## With Heartfelt Thanks

- "PWF is more than a title - it's our shared mission."
- You are now part of a growing scientific community
- Keep asking questions. Keep reaching for the stars.



Applicant Statistics – ICTP PWF Sudan



# Personal Contribution

**Lina Mohamed**

B.Sc. Medical Laboratory Sciences

Specialization: Microbiology & Histopathology

**Sadeem** was founded in 2022 as the first astronomy association in River Nile State (Atbara), aiming to spread astronomical awareness in Sudan, especially among students.

It organizes public events, exhibitions, lectures, and telescope observations, and proudly revived World Space Week 2025 in Port Sudan for the first time since the war.



# Personal Contribution

## Street astronomy outreach in Omdurman:

Educating refugee students about solar eclipses and enabling safe observation with protective eclipse glasses.

December 2025



**Thanks!**  
**AFAS**  
**IAU General Assembly - 2024**  
**Cape Town**

# Personal Contribution



# Summary and Future Directions

- Despite severe challenges, astronomy outreach in Sudan has not stopped.

Most activities are currently conducted **online**, despite unstable and limited internet access.

- Outreach programs continue with strong commitment from academic and volunteer teams.

Through the Photon Centre initiative, they coordinated scientific seminars with International Centre for Theoretical Physics (ICTP).

- Students still log in when they can. Volunteers still organize events.

**Even in crisis,  
science education continues**

# Summary and Future Directions

- The war in Sudan is still ongoing. The political future remains uncertain, and the national situation is unstable.

However, our academic responsibility continues, as a staff member at OIU Depart. Of Astronomy and Meteorology.

Our cohort graduated and left Sudan before the war began in 2023.



Since then, we have worked to **support the teams and students who remained.**

## • Flexible Learning Support

Because access to education is deeply affected:

- Students in crisis regions are given **flexible exam opportunities.**
- If a student misses their scheduled exam due to circumstances beyond their control.
- his ensures they can continue their education without losing their academic path.

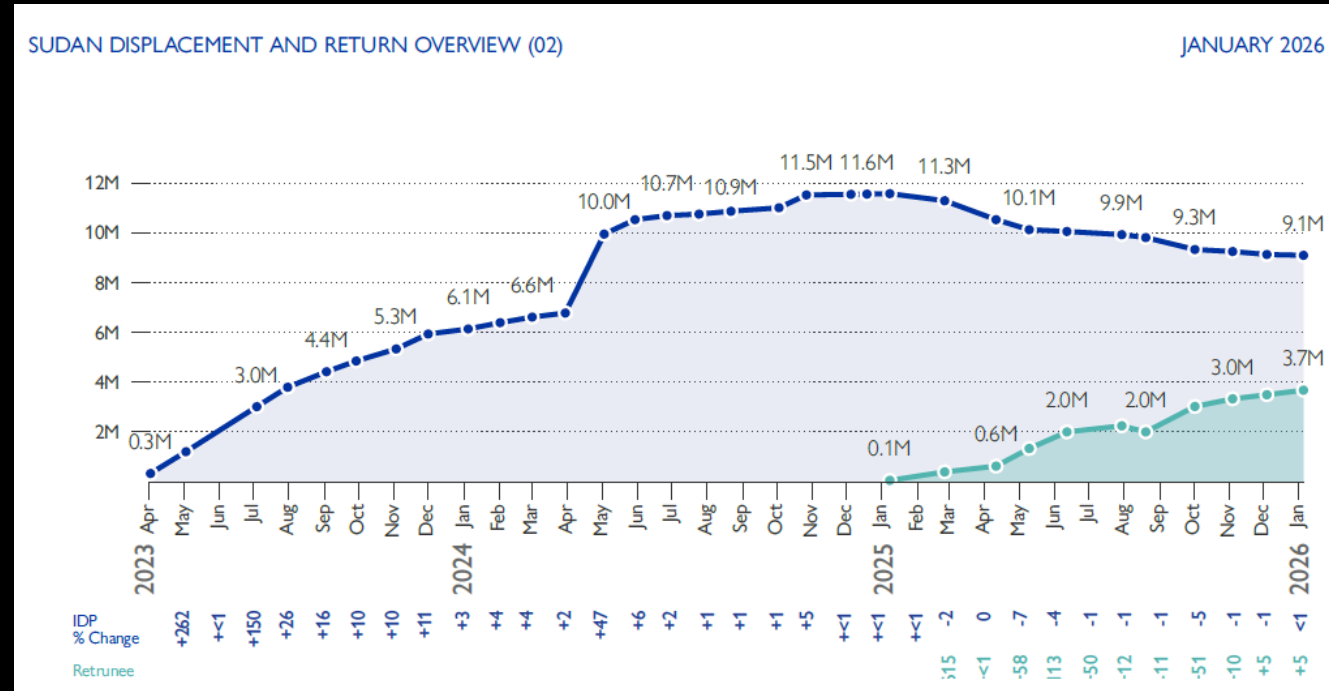
# Summary and Future Directions

## • A difficult reality

- ❑ Some areas appear relatively safe, yet host large numbers of internally displaced families.
- ❑ Many children in these areas have **never had the chance to attend school.**
- ❑ These underserved communities represent our next priority.

## • Our Future Focus

- ❑ Expanding astronomy outreach to displaced and marginalized students.
- ❑ Supporting informal education and mobile learning models.
- ❑ Making science accessible, even outside traditional classrooms.



<https://sudan.iom.int/>

We believe outreach is not a luxury  
it is a bridge to hope, stability,  
and opportunity

البيدأ حاجة يكملها، والبيدأ رحلة يواصلها

منهم من جمها، منهم من تبع حضارة.

**Whoever begins something sees it through.**

**Whoever starts a journey keeps moving.**

**It is not the size that matters**

***what matters is that it builds a civilization.***



**Thank you!**