

DR. AMIDOU SORGHO

Postdoctoral researcher dedicated to studying galaxy evolution, with a particular interest in programming and data science. Throughout my young academic career, I have accumulated years of experience in using data science tools to tackle problems in astrophysics.



CONTACT

- Email:** amid.ast@gmail.com
Phone: +34 657 099 620
Address: Granada 18006, Spain
Handle: @amidou
LinkedIn: Amidou Sorgho
ID: 0000-0002-5233-8260
NASA/ADS: NASA/ADS publication list

SKILLS

Programming

Python	██████
Bash	██████
R	██████
LaTeX	██████
SQL	██████

Operating Systems

MacOS	██████
Linux	██████
Windows	██████

Software & Tools

Data handling & analysis (Numpy, Pandas, etc)	██████
Visualisation (Matplotlib, Seaborn, etc)	██████
ML modeling (Scikit-learn, Keras, etc.)	██████
Git	██████
Docker	██████
Office	██████

Languages

French	██████
English	██████
Spanish	██████
Moré	██████
Dioula	██████

Other skills

- Elaborating and conducting a study
- Communicating scientific results
- Fast learner
- Bayesian inference
- Machine learning techniques
- Convolutional Neural Networks

WORK HISTORY

10/2020 – present	Postdoctoral researcher
CSIC Instituto de Astrofísica de Andalucía (CSIC-IAA) Granada, Spain	Tasks involve studying kinematic scaling relations of large samples of galaxies, to highlight the underlying physics governing them.
05/2019 – 09/2020	Research fellow
IAU Office of Astronomy for Development (IAU-OAD) Cape Town, South Africa	Project: Sustainable Local Socio-Economic Development Through Astronomy
07/2019 – 11/2019	Part-time lecturer
University of Cape Town, South Africa	Course: Galactic and Extragalactic astronomy, 3rd year Undergraduate

EDUCATION

07/2015 - 12/2019	PhD Astronomy
University of Cape Town, South Africa	
02/2013 - 06/2015	MSc Astrophysics
University of Cape Town, South Africa	
02/2012 - 12/2012	BSc. Hons. Astrophysics & Space Science
University of Cape Town, South Africa	
09/2009 – 01/2012	DEA Applied Physics
Université de Ouagadougou, Burkina Faso	
09/2008 – 07/2009	Maîtrise Pure Physics
Université de Ouagadougou, Burkina Faso	

HONOURS AND AWARDS

- IAU-OAD grant for project “Education for All: Promoting Education in Internally Displaced Communities in Burkina Faso” (2022)
- South African Research Chair (SARChI) PhD bursary (2018-2019)
- SKA South Africa Research PhD bursary (2015-2017)
- National Astrophysics and Space Science Programme (NASSP) MSc bursary (2013-2014)
- National Astrophysics and Space Science Programme (NASSP) BSc Hns bursary (2012)

GENERAL SKILLS



PUBLICATIONS

The AMIGA sample of isolated galaxies – Effects of Environment on Angular momentum

 **A. Sorgho**, L. Verdes-Montenegro, K. M. Hess, M. G. Jones, T. H. Jarrett, S. Sanchez-Expósito, J. Garrido

 2023  The Monthly Notices of the Royal Astronomical Society, submitted

A Census of the Extended Neutral Hydrogen Around 18 MHONGOOSE Galaxies

 A. Sardone, D.J. Pisano, N. M. Pingel, **A. Sorgho**, C. Carignan, W. J. G. de Blok

 2021  The Astrophysical Journal, Vol. 910, id.69

 [ADS](#), [arXiv](#)

A $5^\circ \times 5^\circ$ deep HI survey of the M81 group: II. HI distribution and kinematics of IC 2574 and HIJASS J1021+68

 **A. Sorgho**, L. Chemin, S. Z. Kam, T. Foster, C. Carignan

 2020  The Monthly Notices of the Royal Astronomical Society, Vol. 493, id. 2618

 [ADS](#), [arXiv](#)

Distribution of luminous and dark matter in spiral and irregular nearby galaxies using $H\alpha$ and HI rotation curves and WISE photometry

 M. Korsaga, B. Epinat, P. Amram, C. Carignan, P. Adamczyk, **A. Sorgho**

 2019  The Monthly Notices of the Royal Astronomical Society, Vol. 490, id. 2977

 [ADS](#), [arXiv](#)

A $5^\circ \times 5^\circ$ deep HI survey of the M81 group

 **A. Sorgho**, T. Foster, C. Carignan, L. Chemin

 2019  The Monthly Notices of the Royal Astronomical Society, Vol. 486, id. 504

 [ADS](#), [arXiv](#)

Early Observations of the MHONGOOSE Galaxies: Getting ready for MeerKAT

 **A. Sorgho**, C. Carignan, D. J. Pisano, T. Oosterloo, W. J. G. de Blok, M. Korsaga, N. M. Pingel, Amy Sardone, S. Goedhart, S. Passmoor, A. Dikgale and S. K. Sirothia

 2019  The Monthly Notices of the Royal Astronomical Society, Vol. 482, id. 1248

 [ADS](#), [arXiv](#)

HI observations of galaxies in the southern filament of the Virgo Cluster with the SKA Pathfinder KAT-7 and the WSRT

 **A. Sorgho**, K. M. Hess, C. Carignan, T. A. Oosterloo

 2017  The Monthly Notices of the Royal Astronomical Society, Vol. 464, id. 530

 [ADS](#), [arXiv](#)

An Overview of the MHONGOOSE Survey: Observing Nearby Galaxies with MeerKAT

 W. J. G de Blok, E. A. K. Adams, ... , **A. Sorgho** et al.

 2016  Proceedings of Science (MeerKAT2016)

 [ADS](#), [arXiv](#)

SELECTED RELEVANT WORKSHOPS

Severo Ochoa Advanced School of Galaxy Evolution

 Granada, Spain  May 2022

 [Link](#)

ESCAPE Summer School: Data Science for Astronomy, Astroparticle and Particle Physics

 online  June 2021

 [Link](#)

IAA-CSIC Severo Ochoa School on Machine Learning, Big Data, and Deep Learning in Astronomy

 online  April 2021

 [Link](#)

Galactic Dynamics in the Era of Large Surveys

 Shanghai, China  June 2019

 [Link](#)

CRAQ Summer School 2018: Large-scale astrophysics: galaxies and beyond

 Montreal, Canada  June 2018

 [Link](#)

3rd Generation of Calibration - HI Fidelity Workshop

 Port Alfred, South Africa  October & November 2016

 [Link](#)