

Rohan Dahale

Website: www.rohandahale.com
Email : rdahale@iaa.es
ORCID : [0000-0001-6982-9034](https://orcid.org/0000-0001-6982-9034)
GitHub : [rohandahale](https://github.com/rohandahale)

Address:
Instituto de Astrofísica de Andalucía
Glorieta de la Astronomía s/n,
18008 Granada, Spain.

Research Interests

Imaging Supermassive Black holes and Relativistic Jets, millimeter-Very Long Baseline Interferometry (mm-VLBI), Bayesian Imaging and Modeling, Dynamical Imaging

Experience

PhD Candidate, Instituto de Astrofísica de Andalucía (IAA-CSIC) Sep 2022–present

- Supervisor: Dr. José L. Gómez
- Event Horizon Telescope Collaboration Member
- “la Caixa” Doctoral Fellow
- Working on “A Bayesian approach to imaging supermassive black holes and relativistic jets with mm-VLBI data”

Master Thesis, Instituto de Astrofísica de Andalucía (IAA-CSIC) Oct 2021–Jun 2022

- Title: Magnetic Fields of Relativistic Jets of Supermassive Black Holes
- Supervisor: Dr. José L. Gómez
- Funded by JAE-INTRO Fellowship by CSIC

Research Intern, University of California, Santa Barbara May–July 2019

- Supervisors: Dr. Emilia Järvelä, Prof. Robert Antonucci
- Extended Radio Emission in Narrow-line Seyfert 1 Galaxies with JVL A
- QSO PG 1630+377 Lyman Edge Polarisation using Hubble

Education

Universidad de Granada 25 Nov 2022–present
Doctoral Programme in Physics and Space Sciences

Indian Institute of Science Education and Research Kolkata 1 Aug 2017–14 Jul 2022
Bachelor and Master of Science in Physical Sciences

Selected Publications

- [2] Event Horizon Telescope Collaboration, (**including R. Dahale**), K. Akiyama, *et al.*, “The persistent shadow of the supermassive black hole of M 87. I. Observations, calibration, imaging, and analysis,” *Astronomy & Astrophysics*, vol. 681, A79, Jan. 2024. DOI: [10.1051/0004-6361/202347932](https://doi.org/10.1051/0004-6361/202347932).
- [1] E. Järvelä, **Dahale, R.**, L. Crepaldi, *et al.*, “Unravelling the origin of extended radio emission in narrow-line Seyfert 1 galaxies with the JVL A,” *Astronomy & Astrophysics*, vol. 658, A12, Feb. 2022. DOI: [10.1051/0004-6361/202141698](https://doi.org/10.1051/0004-6361/202141698). arXiv: [2109.07841](https://arxiv.org/abs/2109.07841) [[astro-ph.GA](https://arxiv.org/archive/astro)].

Honors and Awards

“la Caixa” Doctoral INPhINIT Fellowship 1 Sep 2022 - 31 Aug 2025
Fundación “la Caixa” - Instituto de Astrofísica de Andalucía (IAA-CSIC)

- 35 fellowships (1000s of applications) are awarded to pursue PhD studies in research centres accredited with the Spanish Seal of Excellence Severo Ochoa in STEM disciplines.

- Duration: 3 years and Total grant: €122,592.

Extension to the JAE Intro 2021 Scholarship

Mar - Jun 2022

Consejo Superior de Investigaciones Científicas (CSIC), Spain

- Extension of 4 months with €2,400 is awarded to top 100 beneficiaries of the JAE Intro Scholarship

JAE Intro 2021 Scholarship

Oct 2021 - Feb 2022

Consejo Superior de Investigaciones Científicas (CSIC), Spain

- 250 scholarships (1000s of applications) offered to undergraduate students.
- Total grant: €3,000 for five months. Used for the Master Thesis at IAA-CSIC.

VIkram Sarabhai Innovation competition (VISION)

Jun - Dec 2019

Physical Research Laboratory, Ahmedabad, India

- Received grant of 300,000 INR (\sim €3,500) and got selected among the top 6 teams in India.

Radio Astronomy Winter School (RAWSC) 2018

Dec 2018

National Centre for Radio Astrophysics (NCRA), Pune, India

Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune, India

- Among the top 30 students selected in India

INSPIRE Scholarship

Aug 2017 - Jul 2022

Department of Science and Technology (DST), India

- Offered to top 1% students in 12th grade exams, undertaking Bachelor and Masters level education in the Natural Sciences. The scholarship amounts to 400,000 INR (\sim €4,500) for 5 years.

Invited Talks

- | | |
|---|---|
| [2] New EHT Results of the M87* Shadow:
Observations, Imaging, and Analysis from Multiple Years
<i>European Astronomical Society Annual Meeting 2024, Padova, Italy</i> | 1 July 2024 |
| [1] 2018 M87* Ring Ellipticity
<i>2023 EHT Virtual Collaboration Meeting</i> | 12 Dec 2023
Presentation |

Contributed Talks

- | | |
|--|---|
| [7] Full Stokes Bayesian Modeling and Imaging of VLBI data with <code>Comrade.jl</code>
<i>European Astronomical Society Annual Meeting 2024, Padova, Italy</i> | 1 July 2024 |
| [6] Measuring the Ring Ellipticity of M87* using 2018 the EHT data
<i>EHT Collaboration Meeting Summer 2024, Mexico City, Mexico</i> | 24 May 2024
Presentation |
| [5] Full Stokes Snapshot Modeling with <code>Comrade.jl</code>
<i>SgrA* Dynamics Workshop, Granada, Spain</i> | 27 Feb 2024
Presentation |
| [4] Measuring the Ring Ellipticity of M87* using 2018 the EHT data
<i>EHT Collaboration Meeting 2023 Summer, Taichung, Taiwan</i> | 27 Jun 2023
Presentation |
| [3] A Bayesian Approach to Imaging Supermassive Black Holes and Relativistic Jets
<i>Doctoral Conferences (Jornadas de Doctorado), IAA-CSIC</i> | 17 May 2023
Presentation |
| [2] Accelerating Bayesian Imaging with <code>Comrade.jl</code>
<i>2022 EHT Winter (Virtual) Collaboration Meeting</i> | 15 Dec 2022
Presentation |
| [1] Accelerating Bayesian Imaging with <code>Comrade.jl</code>
<i>Resolve Workshop 2022, MPIfR, Bonn, Germany</i> | 26 Oct 2022
Presentation |

Accepted Proposals & Observations

2024 Event Horizon Telescope Observation Campaign <i>Observed at the IRAM-30m Telescope, including the 2023.1.01244.V proposal</i>	April 2024
2023.1.01244.V: The Multi-frequency Horizon-scale View of M87 <i>Led the Event Horizon Telescope ALMA Cycle 10 Proposal</i>	May 2023

Workshops & Conferences

European Astronomical Society Annual Meeting 2024, Padova, Italy <i>European Astronomical Society</i>	1 - 5 July 2024
EHT Collaboration Meeting Summer 2024 <i>Event Horizon Telescope Collaboration, Mexico City, Mexico</i>	19 - 25 May 2024
Doctoral INPhINIT Fellowship: 2nd Year Annual Gathering <i>Fundación “la Caixa” — SIRIS Academic, CaixaForum Barcelona, Spain</i>	18 - 21 Mar 2024
SgrA* Dynamics Workshop, <i>Event Horizon Telescope Collaboration, IAA-CSIC, Granada, Spain</i>	26 Feb - 1 Mar 2024
2023 EHT Virtual Collaboration Meeting <i>Event Horizon Telescope Collaboration</i>	11 - 15 Dec 2023
EHT Collaboration Meeting 2023 Summer <i>Event Horizon Telescope Collaboration, Taichung, Taiwan</i>	26 - 30 June 2023
Doctoral INPhINIT Fellowship: 1st Year Annual Gathering <i>Fundación “la Caixa” — SIRIS Academic, CaixaForum Girona, Spain</i>	20 - 23 Feb 2023
2022 EHT Winter (Virtual) Collaboration Meeting <i>Event Horizon Telescope Collaboration</i>	12 - 15 Dec 2022
Resolve Workshop 2022 <i>MPIfR, Bonn, Germany</i>	24 - 27 Oct 2022
European Radio Interferometry School 2022 <i>JIVE & ASTRON, Dwingeloo, Netherlands</i>	18 - 25 Sept 2022
European Astronomical Society Annual Meeting <i>Valencia, Spain</i>	27 Jun - 1 Jul 2022
Assembling the ngEHT <i>Next Generation Event Horizon Telescope, Granada, Spain</i>	22 - 25 Jun 2022
EHT 2022 Summer Collaboration Meeting <i>Event Horizon Telescope Collaboration, Granada, Spain</i>	19 - 22 Jun 2022
18th Synthesis Imaging Workshop (virtual) <i>National Radio Astronomy Observatory (NRAO), USA</i>	25 - 28 May 2022
From Vision to Instrument (virtual) <i>Next Generation Event Horizon Telescope</i>	1 - 5 Nov 2021

Outreach

Official Press Release of the EHT for the 2018 M87* Paper I <i>M87* One Year Later: Proof of a persistent black hole shadow</i>	18 Jan 2024
---	-------------

Official Press Release of IAA-CSIC for the 2018 M87* Paper I

18 Jan 2024

English version: [M87* One Year Later: Proof of a persistent black hole shadow](#)

Managing Social Media of VLBI Group at IAA-CSIC

May 2022 - present

[X.com](#), [Instagram](#), [Threads](#)

Developer of the Website of the VLBI Group at IAA-CSIC

May - present

Maintaining the website here: [Website](#)

Teaching

Spring 2021: PH1201: Electricity and Magnetism

Apr - Jul 2021

Level: First Year BS-MS, IISER Kolkata

Autumn 2020: PH1101: Mechanics I

Dec 2020 - Mar 2021

Level: First Year BS-MS, IISER Kolkata

Autumn 2020: PH3103: Mathematical Methods for Physics

Aug - Dec 2020

Level: Third Year BS-MS, IISER Kolkata

Other positions

Local Organizing Committee Member

26 Feb - 1 Mar 2024

SgrA Dynamics Workshop*

Local Organizing Committee Member

11 - 15 Dec 2023

2023 EHT Virtual Collaboration Meeting

Local Organizing Committee Member

22 - 25 Jun 2022

Assembling the ngEHT, Granada, Spain

Local Organizing Committee Member

19 - 22 Jun 2022

EHT 2022 Summer Collaboration Meeting, Granada, Spain

Class Representative, Department of Physical Sciences

Aug 2019 - Dec 2020

Indian Institute of Science Education and Research Kolkata

Skills

VLBI: Comrade.jl, eht-imaging

Programming: Julia, Python, Bash

Languages: English (native), Hindi (native), Marathi (Native), Spanish (A2)

References

Dr. José L. Gómez

Research Scientist

Instituto de Astrofísica de Andalucía (IAA - CSIC)

Granada, Spain

Web: <http://vlbigroup.iaa.es>

Email: jlgoz@iaa.es

Last updated: June 25, 2024