

JÚLIA M. SISK-REYNÉS

Institute of Astronomy (IoA), University of Cambridge, UK

[Personal website](#) ◊ [Publications on NASA/ADS](#) ◊ [ORCID](#) ◊ [IoA profile](#)

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X-ray astronomer using observational, computational and statistical methods to study fundamental physics - including black holes, axions and dark matter- with current and future missions such as *Chandra* and *Athena*.

– EDUCATION –

Ph.D. in Astronomy - Institute of Astronomy, University of Cambridge 2020 - 2024

- Thesis centres on using high-resolution X-ray spectra of active galaxies to probe axions and massive black holes. Supervised by Prof. Chris Reynolds and Dr. James Matthews.

MPhys Physics - The University of Manchester 2016 - 2020

- Thesis on galaxy cluster cosmology. Modelled the thermal Sunyaev-Zel'dovich effect from analytic and empirical cluster pressure profiles in cosmological simulations. Supervised by Prof. Scott Kay.

– AWARDS, PRIZES AND RECOGNITIONS –

Sponsorship at Fluid Dynamics Summer School at the Flatiron Institute 2023

- Two-week summer school at the Centre for Computational Astrophysics in New York, US.

Paul Murdin Prize, Institute of Astronomy, University of Cambridge 2022

- For the best journal paper by a current Ph.D. student.

Studentship from the UK Science and Technologies Facilities Council for a Ph.D. 2020

Stellify Award from the University of Manchester 2020

- Honorary award recognising extracurricular contributions made from 2016 to 2020.

– INVITED AND CONTRIBUTED TALKS –

Since 2022, I have given 22 talks (9 as invited speaker) at scientific conferences and meetings and to research groups at departments and to telescope collaborations in the UK, the US, and Europe.

– RELEVANT RELATED EXPERIENCE –

University of Cambridge

- ◊ Lead organiser of International Women's Day at the Institute of Astronomy 2022 - 2024
- ◊ Invited speaker at the Lindemann Trust Science Day at Magdalene College, Cambridge 2023, 2024
- ◊ Graduate representative, Computer Users' Committee at the Institute of Astronomy 2021 - 2023
- ◊ Press Releases: [Chandra X-ray Observatory](#) and [Athena X-ray Observatory](#) 2022, 2023
- ◊ Organised Seminars for Newnham College Middle Room 2021 - 2023
- ◊ Mentor to a summer intern researching black holes at the Institute of Astronomy 2022
- ◊ Undergraduate supervisor for Mathematics and Astrophysical Fluid Dynamics 2021 - 2022
- ◊ Co-chair of the first-year graduate student journal club 2021

University of Manchester

- ◊ Student representative for final-year Physics undergraduates 2019 - 2020
- ◊ Lead member of the student-run Nuclear and Particle Physics Society 2017 - 2020
- ◊ Summer research internship in dark matter detection, Particle Physics Department 2019
- ◊ Teach First Insight Programme trainee in London and Southampton 2019
- ◊ Ogden Trust Teach Physics intern at The Derby High School in Bury 2018

– OTHER INFORMATION –

Programming & OS Python (including `mpi`), `tcl`, `bash`, \LaTeX ; Unix, macOS, Windows

Software & codes (PY)XSPEC, HEASOFT, DS9, ALPRO; AREPO and ATHENA++ (basic)

Languages English, Catalan and Spanish

Publications [Five](#) published papers in refereed journals as first-author/co-author (4/1)