

# Dr Riccardo Arcodia

## Curriculum Vitae

70 Vassar St (37-667)  
02139 Cambridge, MA, USA  
✉ riccardo.arcodia@gmail.com

### Employment

- 2026–present **Black Hole Initiative at Harvard University, BHI Postdoctoral Fellow**
- 2023–2025 **MIT Kavli Institute for Astrophysics and Space Research, NASA Einstein Postdoctoral Fellow**
- 2021–2022 **Max Planck Institute for Extraterrestrial Physics, Postdoctoral Researcher**

### Education

- 2017–2021 **PhD *summa cum laude* in Astrophysics, Max Planck Institute for Extraterrestrial Physics / Ludwig Maximilian University Munich**  
Supervisors: Andrea Merloni, Kirpal Nandra  
Defense date: 30 September 2021  
Thesis Title: *Accretion onto black holes across the mass scale*
- 2015–2017 **Master's Degree *magna cum laude* in Astrophysics and Space Physics, Università degli Studi di Milano-Bicocca**  
Thesis Title: *X-ray absorption study of high-redshift blazars: a way to probe the intergalactic medium*  
Supervisors: Sergio Campana, Gabriele Ghisellini
- 2012–2015 **Bachelor's Degree in Physics, Università degli Studi di Milano-Bicocca**  
Thesis Title: *Study of the X-ray absorption of a complete sample of Swift GRBs*  
Supervisors: Sergio Campana, Monica Colpi

### Awards and Prizes

- 2022 **NASA Einstein Fellowship**, class of 2022
- 2022 **ORIGINS Excellence Cluster PhD Award 2022**
- 2021 **IAU PhD Prize 2021 for Division D**

### Service Activities

#### International collaborations

- 2025–present NewAthena Science Working Group 5 contributing member
- 2023–present Member of the LGWA multi-messenger astronomy working group

- 2023–present Member of the AXIS TDAMM X-ray Telescope Science Team  
2023–present eROSITA-DE individual external collaborator  
2024–2025 NICER Users Group member  
2019–2022 eROSITA-DE member

#### Organizing committees

- 2025 SOC member of international conference "X-ray QPEs and extreme, repeating extragalactic transients"; June 2025; Madrid, Spain  
2024 Co-organizer of the Astro-ML workshop "Freedom Trail of Code: Boston Astrophysics x Machine Learning Hackathon 2024"; Cambridge, USA  
2023 Co-organizer of the first "*BABAM!* Boston-Area Blackhole Accretion Meeting" workshop; Cambridge, USA

#### Peer reviewer

- 2020–present Panelist: XMM-Newton; Hubble Space Telescope; Swift; OPTICON Telescopes network  
2020–present Reviewer: *Nature*, ApJ, ApJ Letters, A&A, MNRAS

## Grants

#### Research grants

- 2026– Lisa Preparatory Science grant 2025: \$TBD (1 FTE for 3 years)

#### NASA Guest Observer

PI grants from NASA guest observer programs (2024–present): >\$300k.

- 2026– XMM-Newton Observing grant AO24: \$54,588.54  
2025–present XMM-Newton Observing grant AO23: \$83,023.00  
2025–present Chandra Observing grant Cycle 26: \$20,997.02  
2025–present XMM-Newton Observing grant AO23: \$76,922.00  
2024–present Swift-XRT Observing grant Cycle 20: \$39,997.00  
2024–present NICER Observing grant Cycle 6: \$37,053.00

#### Other

- 2022–2025 NASA Einstein Fellowship: \$346,222.00  
2022 ORIGINS Excellence Cluster PhD Award 2022: 2000 €

## Supervision & Mentorship

#### Direct supervision

- 2025 - present MIT Post-bac student Prajna Nair.

- 2025 MIT UROP Spring and Summer students Peter Dong, Paulina Xu.  
2024 - 2025 MIT UROP IAP students Peter Dong, Justin Zhang, Paulina Xu.  
2024 MIT UROP Spring student Kush Khamesra

### Mentorship

- 2023 - present MIT PhD student Joheen Chakraborty (superv. Prof. Kara)  
2023 - present MPE PhD student Zsofi Igo (superv. Dr Merloni)  
2023 - present MPE PhD student Pietro Baldini (superv. Dr Rau)

## Teaching

- 05/2025 Guest lecture for the undergraduate course "High Energy Astrophysics" (Prof. M. Brusa), as part of the INAF OAS Visitor Program.  
02/2025 Guest lecture for the undergraduate course "Astro 220" (Dr. P. Hughes), as visitor of Univ. of Michigan.

## Research experience

### Approved guest observer proposals as Principal Investigator

- 2024-2025 – XMM AO24:  $\sim 110$  ks aToO allocated +  $\sim 25$  ks *Swift-XRT*. Partially observed.  
2023-2024 – Chandra Cycle 26:  $\sim 10$  ks allocated +  $\sim 0.5$  h VLA. Observed (Student work in prep.).  
– XMM AO23:  $\sim 116$  ks allocated. Observed (work in prep.).  
– XMM AO23:  $\sim 68$  ks allocated +  $\sim 2$  h with VLA. Observed (Student work in prep.).  
– VLA/24B-353:  $\sim 3.5$  h allocated. Observed (Student work in prep.).  
– ATCA:  $\sim 25$  h allocated in two proposals. Observed (Student work in prep.).  
– Swift Cycle 20:  $\sim 70$  ks allocated. Observed (Published; work in prep.).  
– NICER Cycle 6:  $\sim 69$  ks allocated. Observed (Published; work in prep.).  
2022-2023 – NICER Cycle 5:  $\sim 77$  ks allocated. Published as senior author.  
– ATCA 2023APRS: 14h allocated. Published as 1st author.  
2021-2022 – NICER Cycle 4:  $\sim 98$  ks allocated. Published as senior author.  
– VLA/23A-0594: - 3.50 hours at Priority A. Published as senior author.  
2020-2021 – XMM-Netwon A020 Large Programme: 4x130 ks anticipated ToOs allocated. Fully triggered, published as 1st author.  
– NICER Cycle 3:  $\sim 120$  ks allocated. Published as senior author.

- Chandra Cycle 22: 2x75 ks-long anticipated ToOs allocated by the panel. Not triggered.
- 2019-2020 – NICER Cycle 2: - ToO monitoring for a total of  $\sim$  186 ks. Published as 1st author.  
– XMM-Netwon A019: 2x90 ks anticipated ToOs. Published as 1st author.
- 2018-2019 – XMM-Netwon A018: 123 ks in priority C, not observed.

### [Colloquia - Invited Seminars](#)

- 12/2025 *Black Hole Initiative at Harvard* - Colloquium  
 10/2025 *Max Planck for Extrat. Physics* - Special Seminar  
 04/2025 *Univ. Colorado Boulder* - Special Seminar  
 03/2025 *Astrophysics and Space Science Observatory of Bologna* - Colloquium  
 02/2025 *Univ. of Michigan* - Colloquium  
 01/2025 *Carnegie Observatories* - Colloquium  
 11/2024 *CfA Harvard & Smithsonian* - Invited UMBRELA seminar  
 02/2024 *STScI* - Invited seminar  
 10/2023 *Michigan State Univ.* - Colloquium  
 05/2023 *IAS Princeton* - Invited seminar  
 04/2023 *UC Berkeley* - Invited seminar  
 02/2023 *McGill Univ. Montreal* - Colloquium  
 10/2022 *Univ. of Milan Bicocca* - Invited seminar  
 09/2022 *Racah Institute of Physics* - Invited seminar  
 05/2022 *IoA Cambridge UK* - virtual seminar  
 05/2022 *ESO Garching* - virtual Hypatia colloquium  
 04/2022 *Columbia Univ.* - virtual seminar  
 03/2022 *MIT* - virtual seminar  
 10/2021 *INAF/IASF Milano* - virtual seminar  
 09/2021 *MPE/OPINAS group* - virtual seminar  
 08/2021 *Hebrew University of Jerusalem* - virtual seminar  
 06/2021 *National Astronomical Observatories, China* - virtual seminar  
 06/2021 *Bologna Univ.* - virtual seminar  
 06/2020 *Southampton Univ.* - virtual seminar  
 05/2020 *Astronomical Institute, Prague* - virtual seminar

### [Conferences](#)

- 07/2025 *Vasto Accretion Meering 2025* - Vasto - Contributed.

- 06/2025 *X-ray QPEs & Repeating Transients* - ESAC - Contributed (SOC member).
- 03/2025 *Frontiers of Astrophysical black holes* - Sexten - Invited.
- 10/2024 *5th gravi-gamma-nu workshop* - Bari - Invited.
- 09/2024 *First Results from SRG/eROSITA* - Munich - Invited.
- 09/2024 *Galactic and extragalactic X-ray transients* - Warsaw - Invited.
- 09/2024 *TDEs and Nuclear Transients* - Heraklion - Invited.
- 06/2024 *AAS 244* - Madison, USA - Contributed + press release.
- 04/2024 *TDE24 Conference and Programme* - KITP Santa Barbara - Invited.
- 12/2023 *Intermediate-mass black holes* - San Pedro - Contributed.
- 06/2023 *Flares and Bursts in Galactic Nuclei* - Princeton - Invited.
- 04/2023 *AAS HEAD 20* - Waikoloa - Invited.
- 03/2023 *Extreme black holes* - Aspen - Contributed.
- 12/2022 *ORIGINS science week* - Seeon - Invited (prize).
- 08/2022 *IAU General Assembly 2022* - Busan - Invited (prize).
- 07/2022 *44th COSPAR Assembly* - Athens - Two contributed.
- 07/2022 *From the Dolomites to the event horizon: sledging down the black hole potential well* - Sexten - Invited.
- 06/2022 *Black holes under the X-ray microscope* - Madrid - Invited.
- 04/2022 *Intermediate-mass black holes* - San Juan - Contributed.
- 07/2021 *Sixteenth Marcel Grossmann Meeting* - Virtual - Contributed.
- 06/2021 *European Astronomical Society 2021* - Virtual - Two contributed.
- 11/2019 *AGN Spectral States - Unification of Black Holes across the mass scale* - Prague - Contributed.
- 09/2019 *X-ray Astronomy 2019 - Current challenges and new frontiers in the next decade* - Bologna - Contributed.
- 08/2019 *Quasars in crisis 2019* - Edinburgh - Flash talk and e-Poster.
- 07/2019 *From the Dolomites to the event horizon: sledging down the black hole potential well* - Sexten - Contributed.
- 06/2019 *Supermassive Black Holes: environment and evolution* - Corfu - Contributed.

### Press Releases

- 2024 AAS 244 Conference press event. Speaker.
- 2024 MPE press release - "Massive black holes in low-mass galaxies: what happened to the X-ray Corona?". Writing.
- 2021 EAS 2021 Conference: eROSITA press release. Speaker.

2021 MPE press release - "eROSITA witnesses the awakening of massive black holes". Writing.

## Equity & Inclusion initiatives

2024 Co-propose for FY 2024 NHFP funds for IDEA working group

### Outreach Activities

2016 Co-organizer of a stand on Gravitational Waves at the 2016 European Researchers Night event MEETmeTONIGHT, in Milan.

2016 Staff member at Pint of Science 2016, in Milan.

## Publications

ORCID 0000-0003-4054-7978

Stats 12/25 529 citations from 11 1st author refereed publications

3774 citations from 67 total refereed publications

### First three authors

- *Radio properties of the quasi-periodic eruption source RXJ1301.9+2747 at parsec scales*  
S. von Fellenberg, **R.Arcodia**, P. Benke et al.; A&A in press, arXiv:2511.14863, (2025)
- *The radio properties of quasi-periodic X-ray eruption sources*  
A. Goodwin, **R.Arcodia**, G. Miniutti et al.; PASA, 42, 130, (2025)
- *A new Bowen fluorescence flare and extreme coronal line emitter discovered by SRG/eROSITA*  
P. Baldini, A. Rau, **R.Arcodia** et al.; A&A, 701, A224 (2025)
- *SRG/eROSITA No. 5: Discovery of Quasiperiodic Eruptions Every  $\sim$ 3.7 days from a Galaxy at  $z > 0.1$*   
**R.Arcodia**, P. Baldini, A. Merloni et al.; ApJ, 989, 1, 13 (2025)
- *Discovery of Quasiperiodic Eruptions in the Tidal Disruption Event and Extreme Coronal Line Emitter AT2022upj*  
J. Chakraborty, E. Kara, **R.Arcodia**, et al.; ApJL, 983, 2, L39 (2025)
- *Fragments of harmony amid apparent chaos: a closer look at the X-ray quasi-periodic eruptions of the galaxy RX J1301.9+2747*  
M. Giustini, G. Miniutti, **R.Arcodia**, et al.; A&A, 692, A15 (2024)
- *Ticking away: the long-term X-ray timing and spectral evolution of eRO-QPE2*

- R.Arcodia, I. Linial, G. Miniutti, et al.; A&A, 690, A80 (2024)
- *Cosmic hide and seek: The volumetric rate of X-ray quasi-periodic eruptions*  
R.Arcodia, A. Merloni, J. Buchner et al.; A&A, 684, L14 (2024)
- *Testing EMRI Models for Quasi-periodic Eruptions with 3.5 yr of Monitoring eRO-QPE1*  
J. Chakraborty, R.Arcodia, E. Kara et al.; ApJ, 965, 12 (2024)
- *The more the merrier: SRG/eROSITA discovers two further galaxies showing X-ray quasi-periodic eruptions*  
R.Arcodia, Z. Liu, A. Merloni et al.; A&A, 684, A64 (2024)
- *Massive black holes in nuclear star clusters. Investigation with SRG/eROSITA X-ray data*  
N. Hoyer, R.Arcodia, S. Bonoli et al.; A&A, 682, A36 (2024)
- *O Corona, where art thou? eROSITA's view of UV-optical-IR variability-selected massive black holes in low-mass galaxies*  
R.Arcodia, A. Merloni, J. Comparat et al.; A&A, 681, A97 (2024)
- *Alive and kicking: A new QPE phase in GSN 069 revealing a quiescent luminosity threshold for QPEs*  
G. Miniutti, M. Giustini, R.Arcodia et al.; A&A, 674, L1 (2023)
- *Repeating tidal disruptions in GSN 069: Long-term evolution and constraints on quasi-periodic eruptions' models*  
G. Miniutti, M. Giustini, R.Arcodia et al.; A&A, 670, A93 (2023)
- *The complex time and energy evolution of quasi-periodic eruptions in eRO-QPE1*  
R.Arcodia, G. Miniutti, G. Ponti et al.; A&A, 662, A49 (2022)
- *X-ray detection of a nova in the fireball phase*  
O. Koenig, J. Wilms, R.Arcodia (alph.) *Nature*, 605, 7909 (2021)
- *X-ray quasi-periodic eruptions from two previously quiescent galaxies*  
R.Arcodia, A. Merloni, K. Nandra et al.; *Nature*, 592, 704 (2021)
- *Do stellar-mass and super-massive black holes have similar dining habits?*  
R.Arcodia, G. Ponti, A. Merloni, K. Nandra; A&A, 638, A100 (2020)
- *Testing the disk-corona interplay in radiatively-efficient broad-line AGN*  
R.Arcodia, A. Merloni, K. Nandra, G. Ponti; A&A, 628, A135 (2019)
- *X-ray absorption towards high-redshift sources: probing the intergalactic medium with blazars*  
R.Arcodia, S. Campana, R. Salvaterra, G. Ghisellini; A&A, 616, A170 (2018)

- *The dependence of gamma-ray burst X-ray column densities on the model for Galactic hydrogen*

R.Arcodia, S. Campana, R. Salvaterra; A&A, 590, A82 (2016)

### Selected white & collaboration papers

- *The Advanced X-ray Imaging Satellite Community Science Book*  
Koss, M. et al. (2025), arXiv:2511.00253
- *The Lunar Gravitational-wave Antenna: Mission Studies and Science Case*  
P. Ajith, P. Amaro Seoane, M. Arca Sedda, JCAP, 2025, 01, 108 (2025).
- *Prospects for Time-Domain and Multi-Messenger Science with AXIS*  
AXIS TDAMM group, Universe, 10, 316 (2024).
- *The SRG/eROSITA all-sky survey. First X-ray catalogues and data release of the western Galactic hemisphere*  
A. Merloni, G. Lamer T. Liu, A&A, 682, A34 (2024).
- *The eROSITA Final Equatorial-Depth Survey (eFEDS): The AGN Catalogue and its X-ray Spectral Properties*  
T. Liu, J. Buchner, K. Nandra, A&A, 661, A5 (2022).
- *The eROSITA Final Equatorial-Depth Survey (eFEDS): Identification and characterization of the counterparts to the point-like sources*  
M. Salvato, J. Wolf, t. Dwelly, A&A, Volume 661, A3 (2022).
- *The 16th Data Release of the Sloan Digital Sky Surveys: First Release from the APOGEE-2 Southern Survey and Full Release of eBOSS Spectra*  
R. Ahumada, C. Allende Prieto, A. Almeida et al., APJS, 249, 3 (2020).
- *The final SDSS-IV/SPIDERS X-ray point source spectroscopic catalogue*  
J. Comparat, A. Merloni, T. Dwelly et al., A&A, 636, A97 (2020).

## Languages

Italian Native

English Fluent

German Good command

Spanish Basic

French Basic