

Dr. Eduardo Bañados

Research Group Leader

Max Planck Institute for Astronomy
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Professional Summary

Astronomer specializing in observational cosmology, high-redshift quasars, and the epoch of reionization. Extensive experience with large sky surveys and multi-wavelength observations from X-rays to radio, plus international collaborations, mentoring, and scientific leadership across multiple countries.

Current Position

Research Group Leader (Tenured August 2023)

February 2019–Present

Max Planck Institute for Astronomy, Heidelberg, Germany

- Leading research program on high-redshift quasars and galaxies
- Managing interdisciplinary team of postdocs and PhD students
- Principal investigator on major international telescope proposals

Previous Positions

Carnegie–Princeton Fellow

November 2015–December 2018

Carnegie Observatories & Princeton University, Pasadena, CA & Princeton, NJ

Education

Ph.D. in Astronomy, *Summa Cum Laude*

2011–2015

University of Heidelberg, Germany

Thesis: *The discovery and characterization of the most distant quasars*

Supervisor: Dr. Fabian Walter

B.S. in Astronomy, *Maximum Distinction*

2006–2010

P. Universidad Católica de Chile, Chile

Thesis: *Luminosity function and alignment effect in galaxy clusters*

& Clustering of Lyman Alpha Emitters

Supervisors: Prof. Leopoldo Infante & Dr. Roberto De Propris

Teaching & Mentoring

Invited Lecturer – “Observations of Early Black Holes”

January 2025

54th Saas-Fee Advanced Course, Saas-Fee, Switzerland

- Prestigious winter school for PhD and advanced MSc students (60 participants)
- Lecture notes available on [arXiv:260321976B](https://arxiv.org/abs/260321976B).

Lecturer – “Writing a JWST proposal”

September 2023

18th IMPRS Summer School, Heidelberg, Germany

- Prestigious summer school for PhD and advanced MSc students (90 participants)

Leader of development seminars

2020 – 2025

- Writing competitive observing proposals
- Scientific visualization techniques
- Presentation skills
- Academic job interview preparation

Graduate Student Supervision

Ph.D. Students Supervised:

- Laura Martinez (MPIA/PUC Chile, 2023–2025) – Unsupervised machine learning – *Now postdoc at U. Hamburg*
- Zhang-Liang Xie (MPIA, 2020–2025) – Automatic tools to identify jetted AGN
- Sofía Rojas (MPIA, 2019–2023) – Jetted quasars – *Now postdoc at UCLA*
- Trystan Lambert (co-supervisor, UDP Chile, 2022–2024) – Quasar environments – *Now postdoc at ICRAR*

Postdoctoral Fellows Supervised:

- Dr. Julien Wolf (MPIA, 2023–), Dr. Silvia Belladitta (MPIA, 2022–)
- Dr. Yana Khusanova (MPIA, 2019–2024)
- Dr. Melanie Habouzit (MPIA, 2019–2024; *now group leader at U. of Geneva*)
- Dr. Jan-Torge Schindler (MPIA, 2020–2021; *now group leader at U. Hamburg*)

Additional Students:

- Joyce Glass – Master’s student (U. Heidelberg, 2024–2025; *now PhD at ANU, Australia*)
- Daniela Mueller-Trefzer – Bachelor’s student (U. Heidelberg, 2022)

Publications & Research Impact

Publications: 190 peer-reviewed publications (16 as first author, 40 as second/third author)

Citations: 13,000+ total citations (>4,500 from first to third author papers)

h-index: 63 (32 from first to third author papers)

Details: Complete publication list [in this link](#)

Selected Honors & Awards

Invited Review, Annual Review of Astronomy and Astrophysics 2023
Quasars and the Intergalactic Medium at Cosmic Dawn

Ludwig-Biermann Award, German Astronomical Society 2019
Outstanding young astronomer in Germany (under 35 years)

Thacher Award, Carnegie Institution for Science 2017
Outstanding scientific research proposal

Otto Hahn Medal, Max Planck Society 2015
Young scientists with outstanding achievements

Leadership & Scientific Service

International Collaboration Leadership

Co-lead, Primeval Universe Science Working Group <i>Euclid Collaboration</i>	2025–Present
Key Project Coordinator: Multiwavelength follow-up of Euclid Quasars <i>Euclid Collaboration</i>	2025–Present
Co-lead, High-z QSO Working Group <i>Euclid Collaboration</i>	2022–2025
Steering Committee Member <i>EREBUS High-z QSO/JWST Collaboration</i>	2021–Present
Scientific Advisory Committee Chair <i>Large Binocular Telescope Observatory</i> (Chair: 2020–2025)	2019–Present

Institutional Responsibilities

Organizer, Heidelberg Joint Astronomical Colloquium	2024–Present
Postdoc Recruitment Committee <i>Max Planck Institute for Astronomy</i> (Chair in 2023)	2019, 2021–2025

Peer Review Activities

Grant Review: Royal Society URF fellowship, ERC Synergy & Consolidator grants, Swiss National Science Foundation, Humboldt fellowship
Proposals: JWST, HST, XMM, Giant Meterwave Radio Telescope, Observatorios de Canarias, China telescope access
Journals: ApJ, ApJL, AJ, MNRAS, Nature Astronomy, A&A

Conference & School Organization (selected: only main organizer)

Maximizing Euclid Science Impact <i>Ringberg Castle, Germany</i> – 60 participants expected	July 2026
Quo Vadis Galaxy Evolution? (see Nature Astronomy Report) <i>U. Heidelberg, Germany</i> – 80 participants	June 2025
High-z QSOs with Euclid <i>MPIA, Germany</i> – 20 participants	September 2024
Unravelling galaxy evolution with JWST <i>IMPRS Heidelberg Summer School</i> – 90 graduate students	September 2023
Preparing for high-z QSOs with Euclid <i>Ringberg Castle, Germany</i> – 15 participants	April 2023
Cosmic Dawn with JWST <i>Ringberg Castle, Germany</i> – 40 participants	October 2022
Black holes and galaxies at the edge of the Universe <i>Ringberg Castle, Germany</i> – 40 participants	March 2020
High-z quasars in the JWST era workshop Carnegie Observatories, USA – 30 participants	February 2017

Observational Experience

Principal Investigator: Successful proposals at major ground-based (VLT, LBT, Magellan, GTC, Gemini, VLA, NOEMA, ALMA) and space-based (Chandra, XMM, HST, JWST) observatories

Co-Investigator: Hundreds of nights at international observatories

Selected Invited Presentations

International Talks: 49 invited presentations at conferences and astronomy departments worldwide. Complete list available upon request.

Languages

Spanish: Native

English: Fluent

German: Proficient