

Fabio Pacucci

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Center for Astrophysics
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Nationality: U.S.A. and Italy

Employment & Education

- 2019–present **Clay Fellow & BHI Fellow**,
SAO & Harvard University, Cambridge (MA), USA.
- 2018–2019 **NOVA Fellow**,
Kapteyn Astronomical Institute, the Netherlands.
- 2016–2018 **Postdoctoral Research Associate**,
Yale University — Department of Physics, New Haven (CT), USA.
- 2013–2016 **Ph.D. in Physics**, Scuola Normale Superiore (SNS), Italy.
THESIS TITLE: *The First Black Holes in the Cosmic Dark Ages*; GRADE: 70/70 cum laude

Selected Awards and Scholarships

- 2019 **Clay Fellowship (SAO)** — Award: \$375,000
- 2019 **BHI Fellowship (Harvard University)** — Award: \$360,000
- 2017 **Livio Gratton Prize** — Best Ph.D. Thesis in Astronomy in Italy (2014-2016)
- 2016 **IAU Ph.D. Prize** — International Astronomical Union prize for Ph.D. Thesis
- 2012 **Enrico Persico Prize 2011-2012** — Accademia Nazionale dei Lincei Prize

Awarded Telescope Proposals as Principal Investigator

Telescope	Year	Type	Time	Target	Award
Chandra	2024	DDT	10 ks	Gaia BH3	TBD
JWST (Cycle 2)	2023	GO	12.38 hrs	Leo I dSph	\$88,455
Gemini-S (GMOS)	2023	DDT	6.5 hrs	Leo I dSph	N/A
VLA	2022	DDT	2 hrs	Leo I dSph	N/A
SMA	2022	DDT	6.7 hrs	Leo I dSph	N/A
VLA	2022	DDT	0.75 hr	Leo I dSph	N/A
Chandra	2022	DDT	30 ks	Leo I dSph	\$22,050
Chandra	2022	GO	250 ks	HD2	\$87,200
Keck (MOSFIRE)	2018	GO	2 nights	CR7	N/A
Chandra	2017	THEORY	N/A	N/A	\$87,000

Publications, Professional Presentations, Service (Highlights)

- **Publication record:** Published 122 papers (48 first-author). Citations: 3500+. H-index: 34. m-index: 3.4. Student-led papers: 5.
- **Presentations:** Delivered 10+ Review and Prize talks, 70+ Invited and Contributed talks.
- **Refereeing services:** Nature, ApJ, ApJ Letters, MNRAS, MNRAS Letters, A&A.
- **Peer reviewer:** NASA JWST TAC, NSF Division of Astronomical Sciences, NASA FINESST

- (multiple years), AAS Chambliss award (multiple years), NASA NICER GO (multiple years).
- **Selected memberships and collaborations:** Steering Committee of the AGN Working Group for the NASA Habitable Worlds Observatory (2024 – present); JWST/CEERS Collaboration (2023 – present); AXIS X-ray Telescope Science Team (2022 – present); NASA’s New Great Observatories Science Analysis Group (2023 – present); Member of the AAS Congressional Visit Group 2023 in Washington DC; Associate Member of LISA Consortium (2018 – present); Full Member of the AAS (2016 – present); Junior Member of the IAU (2018 – present); Member of the Center for Astrophysics Postdoc Committee (2020 – present); Member of the IAU Executive Committee for Junior Members (2018 – 2020).
 - **Scientific Organizing Committees:** Co-Organizer of the MIT/Harvard Meeting "BABAM!" (2023); Co-Organizer of the AAS 243 Meeting Special Session "International Students and Researchers in Astronomy: Issues and a Path Forward" (2023); Organizer of a Sexten Summer Workshop on IMBHs (2024); SOC Chair for the Annual BHI Conference (2020 – present); SOC Member for the CfA Colloquium Series (2020 – present); SOC Chair for the BHI Colloquium Series (2019 – present); SOC Member for the Conference "Accretion History of AGN" (2019).

Mentorship, Teaching, and IDEA Initiatives (Highlights)

- **Mentorship:** Directly mentored 27 students (7 graduate, 18 undergraduate, and 2 high school).
- **Teaching:** TA for a Freshman Seminar course in Spring 2024 at Harvard University (1 semester); Guest Lecturer for a Freshman Seminar course in Spring 2023 (2 classes); Guest Lecturer for the course "Gravity, Astrophysics, and Cosmology" at Yale University (2 classes); TA for four undergraduate courses and one graduate course (SNS, Italy).
- **IDEA initiatives:** Member of the AAS Working Group on International Students and Scholars (2024 – present); ECR representative for the "IDEAS, Education and Public Engagement" committee of the CfA Strategic Plan (2023 – present); Member of the CfA Early Career workshop Committee (2023 – present); Original promoter of the "Distratis Scholarship", which funds students from underprivileged communities in southern Italy (2021 – present); Mentor for the Banneker Institute program at Harvard (2021).

Public Outreach and Press Coverage (Highlights)

- **Writer of 5 op-eds for Scientific American:** one featured in Dec 22 printed edition.
- **Educator for 10 TED-Ed educational videos:** 15+ million visualizations in 25+ languages.
- **Book contributions:** "Shaping the Future: Sustainability and Technology at the Crossroads of Arts and Science" (Graffeg, 2023); "Libro dell’Anno 2019" (Treccani, 2020); "Cielo Tricolore" (UAI, 2011), "Astronomia in rete: gli studenti fanno vedere le stelle" (Ministry of Education, 2005).
- **Public outreach activities manager:** Black Hole Initiative at Harvard University.
- **Scientific advisory:** "Black Hole Symphony" by the Boston Museum of Science (2022).
- **Guest for various podcasts** including "Masters of Scale" and ZDNET (Tonya Hall) on CBS.
- **Developer of the Black Hole Calculator:** online tool with ~ 100 daily users worldwide.
- **Delivered 100+ outreach talks**, in person (Italy, USA, Netherlands, Peru, Spain) and virtually.
- **Press coverage:** My work was featured in 5 major press releases. The discovery that JWST’s black holes at $z > 4$ are significantly overmassive; the discovery of the farthest galaxies to date; a model to describe how black holes grow across cosmic time; the discovery of the first strongly lensed quasar at $z > 6$; and the discovery of the first DCBH candidates. The NYT, Boston Globe,

Reuters, USA Today, and ABC News, among many other outlets, covered this work.