

Elena Amato

INAF - Osservatorio Astrofisico di Arcetri
Largo E. Fermi, 5
50125 - Firenze, Italy

Office: +39 055 2752 236
Fax: +39 055 220039
e-mail: elena.amato@inaf.it
PEC: elena_amato@pec.it
[ORCID: 0000-0002-9881-8112](https://orcid.org/0000-0002-9881-8112)

CURRENT POSITIONS	Research Director INAF - Osservatorio Astrofisico di Arcetri	01/2026 –
PREVIOUS POSITIONS	Lead Researcher INAF - Osservatorio Astrofisico di Arcetri	01/2023 – 12/2025
	Researcher INAF - Osservatorio Astrofisico di Arcetri	11/2001 – 12/2022
OTHER APPOINTMENTS	Deputy Director INAF - Osservatorio Astrofisico di Arcetri	02/2024–
	Contract Professor University of Florence, Italy	02/2017–
ACADEMIC QUALIFICATIONS	National Habilitation as full professor	2020
	National Habilitation as associate professor	2013
	Ph.D. in Astronomy, University of Florence, Italy	2001
	Master in Physics, University of Florence, Italy	1998
VISITING POSITIONS	Visiting Professor, Gran Sasso Science Institute (GSSI), L'Aquila, Italy, 2 weeks/year	2022 -
	Visiting scientist at KITP, Santa Barbara, CA, USA for 1 month	2005–2009–2019
RESEARCH INTERESTS	My research interests are in the field of <i>theoretical High Energy Astrophysics</i> . From the point of view of basic physics processes, I am interested in the <i>acceleration and transport of relativistic particles</i> and the <i>physics of relativistic plasmas</i> . From the point of view of specific astrophysical sources and phenomena, my interests cover <i>Cosmic Rays</i> , <i>Supernova Remnants</i> , <i>Pulsar Wind Nebulae</i> and galactic sources of non-thermal emission in general.	

IMPACT OF RESEARCH

My research has led to the publication of

- **85** short author list articles in peer-reviewed international journals
- **15** peer-reviewed articles within large international collaborations
- more than **30** conference proceedings
- **2** contributions to books
- several contributions to roadmaps

with a total of more than **6900 citations**, **H-index 47** and **normalized H-index 25** according to ADS. A complete list of my publications can be found [here](#).

The results of my research have granted me invitations to deliver

- more than 30 invited talks at national and international conferences in the last ten years
- more than 10 colloquia in Research Institutes in the last 5 years

ADDITIONAL ACTIVITIES

Besides research, I have been engaged in a number of other activities. These include: teaching University courses, supervising students and postdocs; obtaining and managing research funds; serving as a member of scientific panels, and as a reviewer for several science funding agencies worldwide and for all the main international journals in the field of Astrophysics. A more extended version of my CV can be found [here](#).

REGULAR TEACHING ACTIVITY

Plasma Physics around Astrophysical Compact Objects 2022–
PhD course, 12 hr/year at
Gran Sasso Science Institute (GSSI), L'Aquila, Italy
(also part of the National PhD in Space Science Technology)

High Energy Astrophysics 2017–
master course, 18 hr/yr
University of Florence

Cosmic Accelerators 2012–2016
PhD course, 6 hr/yr
University of Florence

TEACHING AT INTERNATIONAL PHD SCHOOLS

I have lectured on *Cosmic Ray physics* at 2 International PhD schools and on the *Physics of Compact Objects and their outflows* at 4 more international PhD schools. 2012–2026

MENTORING

I have supervised 9 postdoctoral fellows (including 2 Marie Skłodowska Curie fellows), 1 pre-doctoral fellow, 2 PhD students, 1 visiting PhD student from China (for 1 year) and 6 undergraduate students 2013–

JURIES AND ACADEMIC SELECTION COMMITTEES	<p>I have served as a referee for 7 PhD juries in Italy and abroad, 20 laurea committees, 2 french habilitation committees.</p> <p>I have served as a referee and/or a member for several academic selection committees in Italy, France, Hong Kong and the US.</p> <p>I have served in the juries of several scientific prizes, including the “Tacchini Prize” of the Italian Astronomical Society (2020, 2025) and the “Enrico Fermi Prize” of the Italian Physical Society (2022).</p>	2014– 2015–	
RESEARCH GRANTS AS PI	<p>PRIN MUR 2022 <i>Unveiling the footprints of the cosmic ray journey through the Galaxy and beyond</i></p> <p>PRIN INAF 2019 <i>From massive stars to supernovae and supernova remnants: driving mass, energy and cosmic rays in our Galaxy</i></p> <p>2017-14-H.0 ASI-INAF - second call <i>On the escape of cosmic rays and their impact on the background plasma</i></p> <p>INAF - Mainstream Research <i>Understanding Particle Acceleration in Galactic Sources in the CTA era</i></p> <p>2017-14-H.0 ASI-INAF - first call: <i>A Modern Approach to Cosmic Ray Transport in the Galaxy</i></p> <p>CTA-SKA INAF 2016: <i>Probing particle acceleration and γ-ray propagation with CTA and its precursors</i></p> <p>CRACHEN PROGRAM (Scheda INAF) <i>Cosmic Ray Acceleration to the Highest Energies</i> funded by INAF with > 300 keuro in the last 3 years</p>	National PI Research Unit PI National PI National PI Research Unit PI Research Unit PI National PI	2023– 2020–2024 2019–2023 2019–2022 2018 2017-2020 2017–
REFEREE FOR FUNDING AGENCIES	<p>I have served as a referee for several research funding agencies, including the European Union (ERA: Marie Skłodowska Curie actions), the Italian Ministry of Research (FIRB, SIR, PRIN, Montalcini), several Ministries of Research across Europe and the U.S. National Science Foundation.</p>	2011–	

LARGE INTERNATIONAL COLLABORATIONS	Plasma Observatory (ESA M7 candidate mission): member of the Science Working on Plasma Astrophysics	2024–
	MAGIC associate scientist	2022–
	ASTRI-MiniArray : active member of the Galactic Science Working group since 2017 and of Publication Office since 2020	2017–
	Cherenkov Telescope Array Observatory (CTAO) : active member of the Galactic and Cosmic Rays Science Working Groups (SWG) since 2017, <u>deputy-coordinator</u> of the Cosmic Ray SWG in <u>2018-2019</u> , <u>coordinator</u> in <u>2019-2020</u> , <u>SAPO</u> – <u>Speaker and Publication Office</u> – <u>member</u> since 6/2025	2017–
	NewAthena : member of the Science Working Group on “End points of stellar evolution”	2015–
SCIENTIFIC PANELS AND COMMITTEES	member of IUPAP (International Union for Pure and Applied Physics) commission <i>C4</i> : Astro-particle Physics	1/2025–
	vice-president of the INAF Computation time and storage allocation committee (CAT&S)	6/2023–2/2026
	member of ISSI (International Space Science Institute) Science Committee	6/2021–6/2025
	member of the Visiting Committee of APC (Laboratoire Astroparticules et Cosmologie- Paris)	2023
	member of DESY Advisory Committee on Astroparticle Physics	1/2019–6/2023
SCIENCE DISSEMINATION	I have been part of 25 Scientific Organizing Committee of International Conference and International PhD schools and have chaired 12 more	2013–
	I have been deeply engaged in activities with students of all ages and general public, participating in about 100 outreach events in the course of my career.	

Firenze, April 2, 2026