

Greta Ettore

PhD Candidate in Astrophysics | University of Bologna - INAF OAS

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Profile

PhD candidate in Astrophysics at the Italian National Institute for Astrophysics (INAF) – Astrophysics and Space Science Observatory of Bologna (OAS) and University of Bologna. My research focuses on the synergy between high-resolution radio and optical observations to investigate the population of millisecond pulsars in globular clusters.

Education

PhD in Astrophysics

Nov 2023 – Oct 2026

University of Bologna – INAF OAS Bologna

Thesis: High-resolution radio and optical synergy: a jump in Fundamental Physics with millisecond pulsars in globular clusters

Supervisor: Dr. Emanuele Dalessandro - *Co-supervisors:* Dr. Cristina Pallanca, Dr. Mario Cadelano

Progetto PNRR STILES - Proposta IR0000034 - CUP: C33C22000640006

Master's Degree in Astrophysics and Cosmology

Oct 2021 – Sept 2023

University of Padova

Thesis: Distribution of stellar rotational velocities in star clusters of the Magellanic Clouds

Supervisors: Prof. Paola Marigo, Prof. Léo Girardi, Dr. Alessandro Mazzi

Final grade: 110/110 cum laude

Average grade: 29.85/30

Bachelor Degree in Astronomy

Oct 2017 – Dec 2020

University of Padova

Thesis: Pair Instability supernovae nucleosynthesis

Supervisor: Prof. Paola Marigo

Final grade: 105/110

Average grade: 27.17/30

High School diploma

Sept. 2012 – June 2017

Liceo Classico "G.Leopardi", San Benedetto del Tronto (AP)

Final grade: 100/100

Teaching Experience

Academic Tutor for General Relativity

Oct 2022 – Sept 2023

University of Padova - Master's Degree in Astrophysics and Cosmology

I provided academic support and guidance to students facing difficulties with the course of General Relativity by organizing weekly meetings to discuss their doubts. Moreover, I helped students to manage their study time and deal with any organisational issues.

Publications

First Author

New and known millisecond pulsars in NGC 6441: seven new TRAPUM discoveries and updated timing solutions

G. Ettore, V. Venkatraman Krishnan, P.C.C. Freire, E. Dalessandro, Scott M. Ransom, M. Cadelano, C. Pallanca
In preparation

What's my age again? Insights from the youngest white dwarf companion to a millisecond pulsar

G. Ettore, E. Dalessandro, M. Cadelano, A. Ridolfi, C. Pallanca, P.C.C. Freire, V. Venkatraman Krishnan, M. Salaris, F. D'Antona, R. Nag

Submitted to Astronomy & Astrophysics Letters

Identification and characterization of optical companions to the population of millisecond pulsars in the globular cluster M3

G. Ettore, E. Dalessandro, M. Cadelano, C. Pallanca, P.C.C. Freire, A. Ridolfi.

December 2025 - Astronomy & Astrophysics, 704, A261

Searching for exotic object companions in the dense core of NGC 362

G. Ettore, E. Dalessandro, C. Pallanca, M. Cadelano et al.

May 2025 - Astronomy & Astrophysics, 697, A215

Strikingly high fraction of fast rotators in Magellanic Cloud star clusters

G. Ettore, A. Mazzi, L. Girardi, P. Marigo et al.

May 2025 - Monthly Notices of the Royal Astronomical Society, 539, 2537

Co-Author

Exploring the optical properties of redback pulsars: The case of J1717+4308A in the globular cluster M92

J. Chen, **G. Ettore** et al.

July 2026 - Astronomy & Astrophysics

Right round: onset and long-term evolution of rotation in star clusters

Dalessandro, E., Della Croce, A., Vesperini, E., Cadelano, M., Leanza, S., **Ettore**, G., Hughes, M.

May 2026 - Astronomy & Astrophysics, 709, A200

PARSEC V2.0: Rotating tracks and isochrones for seven additional metallicities

C.T. Nguyen, G. Costa, A. Bressan, L. Girardi, G. Cescutti, A.J. Korn, G. Volpato, Y. Chen, G. Pastorelli, M. Trabucchi, K.G. Shepherd, **G. Ettore** and S. Zaggia

August 2025 - Astronomy & Astrophysics, 701, A258

Stellar rotation in the intermediate-age massive cluster NGC1783: Clues about the nature of UV-dim stars

S. Leanza, E. Dalessandro, M. Cadelano, C. Fanelli, **G. Ettore** et al.

May 2025 - Astronomy & Astrophysics, 698, A27

External Fundings

Marco Polo Fellowship (1.5k EUR)

Funded by the Department of Physics and Astronomy at the University of Bologna

Project: Searching and timing of millisecond pulsars in NGC 6441

Hosted for 6 months at the Max Planck Institut fur Radioastronomie, Bonn, Germany, working with Dr. Paulo Freire and Dr. Vivek Venkatraman Krishnan

Conferences & Talks

Contributed Talks

Back to the future: exploring the paths from high-z to local globular clusters

June 29–July 03, 2026

Sexten Center for Astrophysics, Sexten (Italy)

PULSAR 2025

Sept 22–26, 2025

INAF OAC, Cagliari (Italy)

EAS 2025

Jun 23–27, 2025

University College Cork, Cork (Ireland)

Congresso Nazionale Oggetti Compatti (CNOC)

Sept 23–26, 2024

INAF OAC, Alghero (Italy)

Resolved stellar populations from photographic plates to large surveys <i>INAF OAA, Florence (Italy)</i>	Oct 7–11, 2024
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Posters & Short Presentations

Bridging Scales: star clusters and their galaxies from the Local to the high-z universe <i>INAF OAS, Matera (Italy)</i>	Sep 1–5, 2025
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STARS II: current challenges, upcoming solutions <i>INAF OAS, CNR Research Area, Bologna (Italy)</i>	Jun 16–20, 2025
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MODEST24: Exploring Dense Stellar Systems Across Cosmic Time <i>Nicolaus Copernicus Astronomical Center, Warsaw (Poland)</i>	Aug 19–23, 2024
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Schools

INAF PhD School "Francesco Lucchin": from the solar system to high-z galaxies <i>INAF OAPd, Asiago (Italy)</i>	May 26–31 2025
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Astrostatistic School 2024 <i>University of Crete, Heraklion (Greece)</i>	Jul 8–12 2024
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Astro Hack Week 2022 <i>Max Planck Institute for Astronomy, Heidelberg (Germany)</i>	Oct 17–22 2022
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Referee Activity

Referee for Main Astrophysics International Journals – Astronomy & Astrophysics

Organization of conferences

Bridging Scales: star clusters and their galaxies from the Local to the high-z universe <i>Member of Local Organizing Committee</i>	Sep 1–5, 2025
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STARS II: current challenges, upcoming solutions <i>Member of Local Organizing Committee</i>	Jun 16–20, 2025
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Collaborations

MORFEO Science Team - Contributor for the Resolved Stellar Populations group	2025 - Ongoing
Vera Rubin-LSST - Junior Associate in The Stars, Milky Way and Local Volume Collaboration	2024 - Ongoing

Technical and Language Skills

Software: Python (NumPy, Pandas, Matplotlib, SciPy, RegEx, emcee), Jupyter, $\text{\LaTeX}$, Git, Linux, Conda, Windows, SEVN, TRILEGAL, DS9, TOPCAT

Languages: Italian (native), English (B2), German (A1)

Autorizzo il trattamento dei dati personali contenuti nel mio CV ai sensi dell'art. 13 GDPR 679/16.