

# Greta Ettore

PhD Candidate in Astrophysics | University of Bologna - INAF OAS

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## Profile

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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

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### 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

## Teaching Experience

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### 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

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### First Author

#### 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

### 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.

March 2026 - *Astronomy & Astrophysics*

### 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

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### 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

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### Contributed Talks

#### PULSAR 2025

INAF OAC, Cagliari (Italy)

Sept 22–26, 2025

#### EAS 2025

University College Cork, Cork (Ireland)

Jun 23–27, 2025

#### Congresso Nazionale Oggetti Compatti (CNOG)

INAF OAC, Alghero (Italy)

Sept 23–26, 2024

#### Resolved stellar populations from photographic plates to large surveys

INAF OAA, Florence (Italy)

Oct 7–11, 2024

### Posters & Short Presentations

#### Bridging Scales: star clusters and their galaxies from the Local to the high-z universe

INAF OAS, Matera (Italy)

Sep 1–5, 2025

#### STARS II: current challenges, upcoming solutions

INAF OAS, CNR Research Area, Bologna (Italy)

Jun 16–20, 2025

#### MODEST24: Exploring Dense Stellar Systems Across Cosmic Time

Nicolaus Copernicus Astronomical Center, Warsaw (Poland)

Aug 19–23, 2024

## Schools

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#### INAF PhD School "Francesco Lucchin": from the solar system to high-z galaxies

INAF OAPd, Asiago (Italy)

May 26–31 2025

#### Astrostatistic School 2024

University of Crete, Heraklion (Greece)

Jul 8–12 2024

## Referee Activity

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Referee for Main Astrophysics International Journals – Astronomy & Astrophysics

## Organization of conferences

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**Bridging Scales: star clusters and their galaxies from the Local to the high-z universe** Sep 1–5, 2025  
*Member of Local Organizing Committee*

**STARS II: current challenges, upcoming solutions** Jun 16–20, 2025  
*Member of Local Organizing Committee*

## Collaborations

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**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

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**Software:** Python (NumPy, Pandas, Matplotlib, SciPy, RegEx, emcee), Jupyter,  $\LaTeX$ , 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.*