

# Laura Inno

## Personal Information

- **ADDRESS:** Department of Science and Technology  
Parthenope University of Naples  
Centro Direzionale - Isola C4  
(80143) Napoli - ITALY
- **TEL:** +39 081 5476623
- **EMAIL:** [laura.inno@uniparthenope.it](mailto:laura.inno@uniparthenope.it)
- **PEC:** [laura.inno@uniparthenope.pec.it](mailto:laura.inno@uniparthenope.pec.it)
- **CURRENT POSITION:** Assistant Professor at the Department of  
Science and Technology of the Parthenope University of Naples

## Research Experience

My research focuses on the analysis of time-series and application of machine learning techniques for the detection of periodic signals as variable stars and exoplanet transits, and transient signals, such as moving objects in the Solar System.

I have written, or contributed to, 50 refereed publications (plus 5 under review), 5 as first-author, plus 2 contribution to chapters in collective volumes and 1 review. I have also written, or contributed to 2 Research Notes of the American Astronomical Society (AAS), and 13 conference proceeding papers, including 5 as first-author. I also co-authored 6 white papers for large surveys and new instruments.

My **h-index** is currently **22**, with **1400** total citations.

Orcid ID: 0000-0002-0271-2664.

01/07/2022– to date **Assistant Professor (Ricercatore a Tempo Determinato di Tipo B)**  
Science and Technology Department, Parthenope University of Naples, Centro Direzionale Isola  
C4 - 80143 Naples

- European Space Agency (ESA) appointed member of the space mission **Comet Interceptor** and co-PI of the instrument DISC, part of the payload of the spacecraft.
- **PI of the WP 5300** "Activity in support of Comet Interceptor target selection", as part of the financial agreement with the Italian Space Agency 2023-14-HH.o.
- **Member of Vera Rubin LSST science collaborations:** Solar System, Milky Way and Local Volume and the Transits and Variable Stars Science Collaborations.
- **Contribution leader** of an approved in-kind contribution for the LSST-Italy project, financed by INAF.
- **Member** of the Research Unit of the funded PRIN project: "ESPLORA: Exoplanet Spectroscopy at high resolution to Probe their Lost Origins by Revealing their Atmospheric Composition".

- **Member** of the Observing Programme Committee panel for the European Southern Observatory.
- **PI** of the project: "A caccia di un'altra Terra con tecniche di calcolo parallelo e intelligenza artificiale".
- **Founding member** of the research collaboration called "ExoplaNats", which includes researchers from both the Federico II, the Parthenope University and of the NASA Goddard Space Center, and aims at identifying and characterising exoplanets from space photometric and spectroscopic data (TESS, PLATO, HST, JWST).
- **Member of PETS**, the PEPSI/LBT Exoplanet Transit Survey, a high-resolution spectroscopic survey of exoplanet transits, secondary eclipses, and host-star.
- Main responsible for the following courses: - Physics for first year students of the Computer Science bachelor degree; - Physics for first year bachelor students of the Cybersecurity bachelor degree. - Physics-II for second year bachelor students of "Scienze Navali e MeteoOceanoografico" at the Parthenope University of Naples.
- **SDSS External Collaborator** for ongoing projects aiming at studying the chemistry of the young populations in the Milky Way and the Magellanic Clouds (SDSS-IV Project 0597: APOGEE Mapping the Young Galaxy, using Cepheids; SDSSIV Project 0510: Low metallicity Cepheids with APOGEE; SDSS-IV Project 0432: Time Resolved Spectroscopy of Cepheid Variables with APOGEE)
- Member of the Gaia-ESO survey and of the WEAVE survey

23/08/2021– 24/01/2022

#### **Maternity Leave**

29/07/2019–

30/06/2022

#### **Postdoctoral researcher (Ricercatore a Tempo Determinato di Tipo A)**

Science and Technology Department, Parthenope University of Naples, Centro Direzionale, Isola C4 - 80143 Naples

- I joined the Parthenope University of Naples by winning a RTDA financed within the contest of the "Programma Operativo Nazionale Ricerca e Innovazione 2014-2020 - Fondo Sociale Europeo, Azione I.2 Attrazione e Mobilità Internazionale dei Ricercatori 2019"
- **PI of the WP 5300** "Activity in support of Comet Interceptor target selection", as part of the financial agreement with the Italian Space Agency (ASI) and **co-PI of the WP5200** n. 2020-4-HH.o, on "Partecipazione italiana alla fase o della missione ESA Comet Interceptor"

Supervisor: Prof.ssa Alessandra Rotundi

Department: Science and Technology

05/11/2018– 26/07/2019

**Postdoctoral researcher (Assegno di Ricerca)** at INAF-Osservatorio Astrofisico di Arcetri (OAA), Florence, Italy

01/07/2015–31/10/2018

**Postdoctoral researcher (Ricercatrice TD)** at Max Planck Institut für Astronomie (MPIA), Heidelberg, Germany, Königstuhl 17, D-69117 Heidelberg, Germany.

09/05/2015–13/06/2015

**Visitor researcher** at The University of Tokyo, School of Science, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan

Host: Dr. Noriyuki Matsunaga

Department: Department of Astronomy, School of Science

01/01/2015–28/02/2015

**Visitor researcher** at the European Southern Observatory, Karl-Schwarzschild-Str. 2 85748 Garching bei München, Germany

01/11/2012–31/12/2014

**Ph.D fellowship student** at the European Southern Observatory, Karl-Schwarzschild-Str. 2 85748 Garching bei München, Germany

## EDUCATION AND TRAINING

22/12/2014

### **PhD. in Astronomy**

Università di Roma Tor Vergata, Via della Ricerca Scientifica 1, Rome, Italy

Thesis title: “Cepheids as stellar tracers to determine galactic structures: An application to the Magellanic Clouds”

**Grade: cum Laude**

Supervisors: prof. Giuseppe Bono, Dr. Martino Romaniello

2008-2011

### **Master Degree (Laurea Specialistica in Scienze dell’Universo)**

Università di Roma Tor Vergata, Via della Ricerca Scientifica 1, Rome, Italy

Thesis title: “Distance and geometry of the Magellanic Clouds using the Cepheid Near-Infrared Period-Luminosity Relations.”

**Grade: cum Laude**

## INTERNATIONAL CONFERENCES

During my research career, I have attended several international meetings. I have been invited to talk at ten of them, and I have presented either contributed talks or posters to more than twenty of them. A selection of them is listed here.

September 2024

Contributed talk at the Europlanetary Society Conference, Naples, Italy

July 2024

Contributed talk at the European Astronomy Society Conference, Naples, Italy

April 2024

Contributed talk at the VST Science Workshop, Naples, Italy

September 2023

Contributed talk at the LSSTEurope5, Porec, Croatia

September 2023

Invited talk at the 109° National Congress for the Società Italiana di Fisica (SIF)

February 2021

“Giornata internazionale delle Donne e delle Ragazze nella Scienza”, a cura di Edu-INAf. **Invited Speaker**

January 2021

43rd COSPAR Scientific Assembly, Sydney Australia and Virtual meeting: The Italian contribution to Comet Interceptor, the ESA F-class mission to an ancient world.

July 2020

EAS 2020 - Virtual Meeting. Invited Talk for S7: The Magellanic Clouds in the 2020s: a spectroscopic perspective. **Invited Speaker**

November 2019

Annibale de Gasparis Workshop, Naples, Italy. **Invited Speaker**

June 2019

Lyon: European Week of Astronomy and Space Science, S1, S6, SS12. Three accepted contributed talk.

May 2019

Leiden: Lorentz Center, Oort: Metals in Galaxies, Near and Far: Looking Ahead- **Invited Speaker**

February 2019

Sexten Center for Astrophysics: Cosmic Beacons. - **Invited Speaker**

January 2019

Heidelberg: Astronomical Time Series 2019. Title: “The use of templates to characterise variable stars from sparsely sampled light-curves in all-skytime-domain surveys” - **Invited Speaker**

August 2018

Vienna: IAU Focus Meeting FM7: Radial metallicity gradients in star forming galaxies. Title: “Radial metallicity gradients with Galactic stellar probes” -Invited Speaker

August 2018

Vienna: IAU Symposium 347: Early Science with ELTs (EASE), Wien. Talk title: “Cepheids with MICADO@E-ELT: A 2-steps cosmic distance scale”

June 2018

New York, Flatiron Institute: Gaia Sprint 2018 - selected participant

## INVITED SEMINARS

19/05/2023

### **Seminario**

Dipartimento di Fisica, Università degli Studi di Roma 3.

16/06/2022

### **Seminario**

Web-Seminar INAF-Osservatorio Astronomico dell’Abruzzo.

23/05/2019

### **Seminario**

INAF-Osservatorio Astrofisico di Torino

|            |   |
|------------|---|
| 05/12/2018 | <b>Astromeeeting</b><br>INAF-Osservatorio Astronomico di Capodimonte  |
| 03/05/2018 | <b>Joint Colloquium</b><br>INAF-Osservatorio di Astrofisica e Scienza dello Spazio and Dipartimento di Fisica e Astronomia, Università di Bologna |
| 20/01/2017 | <b>Königstuhl Colloquium</b><br>MPIA, Heidelberg  |
| 06/09/2015 | <b>Weekly Seminar</b>   |

## REFeree FOR ASTRONOMICAL JOURNALS AND EXPERTS COMMITTEE

|              |   |
|--------------|---|
| 2029-TO DATE | I served as a member of the ESO OPC for evaluate observing proposals Member of the TNG general TAC  |
| 2018-TO DATE | I regularly serve as a referee for major/international astrophysical journals, in particular: ApJ, MNRAS and Nature Astronomy. I am Reviewer Editor for Frontiers in Physics and Frontiers in Astronomy and Space Sciences. |

## CONFERENCE ORGANISATION AND GRANTS

|           |   |
|-----------|---|
| 2023      | Mamber of the Science Organising Committee for the ESO workshop "What was that" to be hold in January 2024  |
| 2016-2017 | Main organiser and Science Organising Committee (SOC) chair of the conference "Piercing the Galactic Darkness: Stellar populations in high extincted regions of the Milky Way" (GALDARK2017). |

## TELESCOPE TIME AND OBSERVING EXPERIENCE

|                                   |   |
|-----------------------------------|---|
| Telescope<br>Time Awarded         | <p>I have been very successful in obtaining telescope time at highly competitive facilities. As a PI, I have been awarded a total of:</p> <ul style="list-style-type: none"> <li>• 13 nights of telescope time at ESO VLT (P93, P96, Z103, P104);</li> <li>• 6 nights with CARMENES at the CAHA observatory (3.6m);</li> <li>• 8 nights with GROND and 8 nights with FEROS at the 2.2m MPG telescope;</li> <li>• 6 nights with LUCI at LBT (ARGOS science verification).</li> <li>• 2 nights with GIANO at TNG (June 2015)</li> </ul> <p>As Co-I, I have also been awarded of 15 nights (P89, P96, P100) at ESO VLT, 9 nights at ESO NTT (P98, visitor instrument: WINERED, PI: G. Bono), 70 nights with GIARPS at TNG (PI: L. Origlia), and 22 hours with DOLORES and NICS at TNG (PI: M. Lazzarin). I am also Co-I of an observing proposal awarded of HST 12 orbits x 2 cycles (cycle 21, PI: N.Evans) and of 5 nights at SUBARU (PI: N.Matsunaga). I have also obtained more than 20 nights of Guaranteed time at the IRSF/SIRIUS facility in South Africa.</p> |
| Telescope<br>Observing Experience | <p>I have been the visitor observer for:</p> <ul style="list-style-type: none"> <li>• 9 nights at ESO NTT (Near-Infrared Spectroscopy with WINERED);</li> <li>• 2 nights at the TNG (Near-Infrared Spectroscopy with GIANO);</li> <li>• 5 nights at the VLT (Optical Spectroscopy with FLAMES);</li> <li>• 5 nights at the OHP (Optical Spectroscopy with SOPHIE).</li> </ul>   |

## MEMBERSHIP OF SCIENTIFIC SOCIETY

2012-TO DATE      Member of Europlanet Society, SAIT (Società Astronomica Italiana) and SIF (Società Italiana di Fisica)

## PUBLIC OUTREACH AND SCIENCE COMMUNICATION

2023/2024      I am very enthusiastic about public outreach and I have always been active in this field. Some of my activities are listed below. **Festival and public talks:**

- Coordinazione e partecipazione alle attività per il Festival della Scienza di Napoli Futuro Remoto,
- Progetto STEAM - Rappresentare la scienza mediante l'Arte,
- Stelle e comete: luci nel cosmo, seminario presso l'Osservatorio Astronomico di Capodimonte,
- Ciclo di Seminari organizzato con il patrocinio del CUG Parthenope "Vita e Spazio",
- Eventi per la Giornata Internazionale delle Donne e delle Ragazze,
- Ciclo di seminari Woman week.

2020/2021      **National Interviews:**

- Intervista per l'agenzia stampa Dire
- Intervista per il Corriere della Sera (testata nazionale),
- Intervista Live per Meeting Science,
- Intervista Live per She is a Scientist,
- Intervista per Il Bo live di Padova,
- Intervista Live per Radio Rai 3 in occasione della giornata internazionale delle donne nella scienza.

## SUPERVISING AND MENTORING

|                             |   |
|-----------------------------|---|
| April 2024 to date          | Member of the Academic Board for the UNESCO Chair PhD program at the Parthenope University of Naples  |
| February 2024 to date       | Supervisor of a postdoctoral fellowship at INAF-Osservatorio Astronomico di Capodimonte   |
| January 2021- December 2022 | Supervisor of a postdoctoral fellowship (responsabile scientifico per la borsa di ricerca sul tema "Attività di supporto per la definizione del target per la missione spaziale Comet Interceptor/ESA")   |
| October 2020- June 2022     | Tutor of a postdoctoral fellowship (tutor per l'assegno di ricerca dal titolo "Attività per lo sviluppo dello strumento DISC, parte del payload della sonda spaziale Comet Interceptor/ESA, a partire dal bread-board di GIADA, parte del payload della sonda spaziale Rosetta/ESA"). |
| 2020-to date                | Supervisor for bachelor and master thesis in Computer Science and Machine Learning at the Parthenope University of Naples.  |
| 2022-to date                | Tutor of PhD students.  |