

Christian Magliano

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 WebPage

Publications and activities: Google Scholar, Astrophysics Data System

ACADEMIC INTERESTS

Astrophysics; Exoplanets; Data Science; Data Analysis; Data Engineering; Statistics.

EDUCATION

- Jun 2016  **General certificate of Secondary Education** 100/100L, Cava de' Tirreni, Italy .
- Sept 2016 – Sept 2019  **BSc in Physics**, 110/110L, **University of Salerno, Italy**.
Thesis: *SUSY in QM: calculating bound states without calculations*.
- Sept 2019 – Sept 2021  **MSc in Physics**, 110/110L, **University of Salerno, Italy**.
Thesis: *Inflationary cosmology*.
- Jan 2022 – Dec 2024  **PhD in Astrophysics**, **University of Naples, Italy**.
Thesis: *Preparing for the scientific exploitation of the PLATO mission*.

PROFESSIONAL EXPERIENCE

- Jun 2021 - July 2021  **Data Analysis of the DarkSide-50 experiment**, University of Salerno, Italy.
- Feb 2022  **Visitor Observer at Copernico Telescope within the Comet Interceptor mission (ESA)**, Asiago, Italy.
- Jan 2023 – April 2023  **Performance tests of PLATO's optical units**, LEONARDO S.p.A., Campi Bisenzio, Italy.
- Feb 2024 – April 2024  **Data Analysis of PLATO's optical performances obtained in LEONARDO S.p.A.**, LEONARDO S.p.A., Campi Bisenzio, Italy.
- Gen 2025 – now  **Product Analyst**, Immobiliare.it Mutui, Rome, Italy.

PUBLICATIONS

Bibliography

-  1 H. Rauer, C. Aerts, J. Cabrera, *et al.*, "The PLATO mission," *Experimental Astronomy*, vol. 59, no. 3, 26, p. 26, Jun. 2025.  DOI: 10.1007/s10686-025-09985-9. arXiv: 2406.05447 [astro-ph.IM].
-  2 K. Barkaoui, R. P. Schwarz, N. Narita, *et al.*, "Three short-period Earth-sized planets around M dwarfs discovered by TESS: TOI-5720 b, TOI-6008 b, and TOI-6086 b," vol. 687, A264, A264, Jul. 2024.  DOI: 10.1051/0004-6361/202349127. arXiv: 2405.06350 [astro-ph.EP].
-  3 B. K. Capistrant, M. Soares-Furtado, A. Vanderburg, *et al.*, "TESS Hunt for Young and Maturing Exoplanets (THYME). XI. An Earth-sized Planet Orbiting a Nearby, Solar-like Host in the 400 Myr Ursa Major Moving Group," vol. 167, no. 2, 54, p. 54, Feb. 2024.  DOI: 10.3847/1538-3881/ad1039. arXiv: 2401.04785 [astro-ph.EP].
-  4 C. Magliano, G. Covone, E. Corsaro, *et al.*, "Revisiting the conundrum of the sub-Jovian and Neptune desert: A new approach that incorporates stellar properties," vol. 692, A162, A162, Dec. 2024.  DOI: 10.1051/0004-6361/202451252. arXiv: 2411.16960 [astro-ph.EP].

- 5 C. Magliano, G. Covone, V. Nascimbeni, *et al.*, “PLATO on the shoulders of TESS: analysing mono-transit planet candidates in TESS data as a prior knowledge for PLATO observations,” vol. 528, no. 2, pp. 2851–2870, Feb. 2024.  DOI: 10.1093/mnras/stae210. arXiv: 2401.10072 [astro-ph.EP].
- 6 H. Rauer, C. Aerts, J. Cabrera, *et al.*, “The PLATO Mission,” *arXiv e-prints*, arXiv:2406.05447, arXiv:2406.05447, Jun. 2024.  DOI: 10.48550/arXiv.2406.05447. arXiv: 2406.05447 [astro-ph.IM].
- 7 C. Magliano, G. Covone, R. Dobal, *et al.*, “A systematic validation of hot Neptunes in TESS data,” vol. 519, no. 1, pp. 1562–1577, Feb. 2023.  DOI: 10.1093/mnras/stac3404. arXiv: 2211.08490 [astro-ph.EP].
- 8 C. Magliano, V. Kostov, L. Cacciapuoti, *et al.*, “The TESS Triple-9 Catalog II: a new set of 999 uniformly vetted exoplanet candidates,” vol. 521, no. 3, pp. 3749–3764, May 2023.  DOI: 10.1093/mnras/stad683. arXiv: 2303.00624 [astro-ph.EP].
- 9 L. Tonietti, B. Barosa, E. Pioltelli, *et al.*, “Exploring the Development of Astrobiology Scientific Research through Bibliometric Network Analysis: A Focus on Biomining and Bioleaching,” *Minerals*, vol. 13, no. 6, p. 797, Jun. 2023.  DOI: 10.3390/min13060797.
- 10 L. Cacciapuoti, L. Inno, G. Covone, *et al.*, “TESS discovery of a super-Earth and two sub-Neptunes orbiting the bright, nearby, Sun-like star HD 22946,” vol. 668, A85, A85, Dec. 2022.  DOI: 10.1051/0004-6361/202243565. arXiv: 2209.09597 [astro-ph.EP].

CONFERENCE PROCEEDINGS

- 1 S. Fiscale, L. Inno, A. Rotundi, *et al.*, “DART-Vetter: A Deep LeARning Tool for automatic vetting of candidates detected in transiting surveys,” in *EAS2024*, Jul. 2024, 2053, p. 2053.
- 2 D. Piccotti, A. Novi, M. Marinai, *et al.*, “Comparison of PLATO telescope optical unit test results at ambient and in cryo-vacuum environment for definition of focus plane,” in *Space Telescopes and Instrumentation 2024: Optical, Infrared, and Millimeter Wave*, L. E. Coyle, S. Matsuura, and M. D. Perrin, Eds., ser. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, vol. 13092, Aug. 2024, 130924Q, 130924Q.  DOI: 10.1117/12.3020226.
- 3 E. Mazzotta Epifani, I. Bertini, S. Fiscale, *et al.*, “The Dust Environment of Distant Long Period Comets: A Study in Support to ESA Comet Interceptor Space Mission,” in *Asteroids, Comets, Meteors Conference*, ser. LPI Contributions, vol. 2851, Aug. 2023, 2380, p. 2380.
- 4 C. Magliano, G. Covone, R. M. Ienco, *et al.*, “The efficiency of the oxygenic photosynthesis on Earth-like planets in the habitable zone,” in *44th COSPAR Scientific Assembly. Held 16-24 July*, vol. 44, Jul. 2022, p. 582.

Talks

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| Dec 12, 2023 |  Exoplanets in Naples, First ExoplaNats annual meeting. Naples, Italy. |
| Sept 25-27, 2023 |  PLATO Science in Italy: ready to data exploitation?. Catania, Italy. |
| Sep 11-15, 2023 |  109° Congresso Nazionale, Società Italiana di Fisica. Salerno, Italy. |
| Mar 8, 2023 (virtual) |  Invited talk at TESS Science Talks. Massachusetts Institute of Technology, Cambridge, USA. |
| Oct 27, 2022 |  QGSKY meeting. Rome, Italy. |

Talks (continued)

Jul 21, 2022  44th COSPAR Scientific Assembly 2022. Athens, Greece.

Jun 20–24, 2022  XVII Congresso Nazionale di Scienze Planetarie, Naples, Italy.

PUBLIC OUTREACH

2022-now  **Scientific explainer at two editions of Futuro Remoto (XXXVI, XXXVII)**, Naples, Italy.

Oct 2023  **Lecture for high school students on exoplanets**, Liceo G. Da Procida, Salerno, Italy.

Jan 2024  **Lecture for high school students on exoplanets and how to schedule a transit observation**, University of Naples, Italy.

TEACHING EXPERIENCE

May 2022  Assistant supervisor of a BSc thesis in Astrophysics. Title: *Studio dell'efficienza della fotosintesi su esopianeti nella zona abitabile*. Student: Alessio Calise.

 Gave lecture on *General Relativity* theory for the students from "Cosmology" course at the University of Naples. Naples, Italy.

Nov 2023  Assistant supervisor of a BSc thesis in Astrophysics. Title: *Demografia dei pianeti nettuniani caldi*. Student: Gennaro Petillo.

May 2024  Gave lecture on *Planetary and Star formation* for the students from "Astrophysics of Life" course at the University of Naples. Naples, Italy.

Jul 2024  Assistant supervisor of a MSc thesis. Title: *On the use of transmission spectroscopy to understand the formation of giant exoplanets through their atmospheric sulfur and nitrogen chemistry*. Student: Francesco Gallo.

COLLABORATIONS

Jan 2022 – now  Member of the ExoplaNAts team;
Member of the NASA Citizen Science Project Planet Patrol;
Member of the NASA TESS Follow-up Observing Program Working Group;
Member of the PLATO Consortium;
ESA Comet Interceptor mission: observational and analysis support;

Dec 2023  LOC and SOC member, "First ExoplaNAts annual meeting, 12th December 2023"

PRIZES/AWARDS

2023  Bando mobilità, Società Italiana Scienze Planetarie Angela Corradini, Italy.

Jun 2024  Festival dello Spazio, Busalla, Italy.

SKILLS

Technical skills	Development of theoretical models, analytical and critical thinking, problem solving, data analysis, data science, data preparation, data visualization, statistical inference, reporting, A/B testing.
Languages	Italian: native speaker, English: upper intermediate (B2).
Coding and informatics skills	Python (advanced), Microsoft, Mathematica, SQL, R, Derive, $\text{\LaTeX}$, Machine Learning, Matlab (basic).
Communication skills	Strong aptitude for professional networking, public speaking, storytelling, empathy, excellent written and oral communication skills, visual communication.
Professional skills	Excellent stress resistance, leadership, strong motivation and proactive attitude, work meeting coordinator, continuous learning, learning agility.