



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 –  **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.

PUBLICATIONS

Bibliography

- 1 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].
- 2 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].
- 3 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].
- 4 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].
- 5 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].

- 6 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].
- 7 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.
- 8 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 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.
- 3 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. |
| Jul 21, 2022 |  | 44th COSPAR Scientific Assembly 2022. Athens, Greece. |
| Jun 20–24, 2022 |  | XVII Congresso Nazionale di Scienze Planetarie, Naples, Italy. |



PUBLIC OUTREACH

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|----------|---|--|
| 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

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|-------------------------------|---|
| 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, Derive, \LaTeX , Machine Learning, Matlab (basic). |
| Communication skills |  Strong aptitude for professional networking, public speaking, storytelling, empathy, excellent written and oral communication skills, visual communication. |

SKILLS (continued)

Professional skills



Excellent stress resistance, leadership, strong motivation and proactive attitude, work meeting coordinator, continuous learning, learning agility.