

Pietro Leonardi

Curriculum Vitae

Department of Physics and Astronomy 'G. Galilei'
Università degli Studi di Padova
Vicolo dell'Osservatorio 3, Padova, Italy
✉ pietro.leonardi@unitn.it - pietro.leonardi.1@studenti.unipd.it

Research interest

Transit timing techniques — Extremely precise radial velocities — Ground- and space-based transit photometry — Tidal orbital decay

Education

- November 2022-present **PhD in Space Science and Technology**, *University of Trento*, Trento (TN)
Preliminary thesis title: Characterization of exoplanetary systems through transit timing techniques: from orbital decay to mass measurement
Supervised by Prof. Giampaolo Piotto, Dr. Valerio Nascimbeni and Dr. Luca Borsato
- 2019-2021 **Master's degree in Astrophysics and Cosmology**, *University of Padova*, Padova (PD)
Thesis project: "**A ground-based study of transit time variations in the hot Jupiter WASP-12b**"
Supervised by Prof. Giampaolo Piotto, Dr. Valerio Nascimbeni and Dr. Valentina Granata.
- 2016-2019 **Bachelor's degree in Astronomy**, *University of Bologna*, Bologna (BO)

Visiting Periods

- Feb-Oct 2024 **Space Research Institute - Institut für Weltraumforschung (IWF)**, *Graz, Austria*,
Research visiting period at the Space Research institute (Austrian Academy of Sciences, ÖAW), under the supervision of Professor Luca Fossati, as part of my PhD.

First-Author publications (1)

1. *TASTE V. A new ground-based investigation of orbital decay in the ultra-hot Jupiter WASP-12b*
Leonardi, P., V.Nascimbeni, V. Granata, L. Malavolta, L. Borsato, K. Biazzo, A. F. Lanza, S. Desidera, G. Piotto, D. Nardiello, M.Damasso, A. Cunial and L. G. Bedin, 2024, *A&A*, 686 (A84). doi: 10.1051/0004-6361/202348363

Co-author publications (2)

1. *Characterizing a world within the hot-neptune desert: Transit observations of LTT 9779 b with the Hubble space telescope/WFC3*. Edwards et al. (inc. **Leonardi**), 2021, *The Astronomical Journal* 166 (4), 158
2. *The K2-24 planetary system revisited by CHEOPS*. V. Nascimbeni, L. Borsato, **P. Leonardi** et al. 2024, arXiv preprint arXiv:2409.02995

Membership

- CHEOPS Science Team Collaborator
- Member of the GAPS (Global Architecture of Planetary Systems) Collaboration
- Member of the TASTE program

Talk & Poster Presentations

Conference Posters

- **ASES 4: Advanced School on Exoplanetary Science**
Title A new ground-based investigation of orbital decay in the Ultra hot Jupiter WASP-12b
- **TOE III 2023**, Centro de Astrofísica Univ. Porto (Porto, Portugal)
Title A new ground-based investigation of orbital decay in the Ultra hot Jupiter WASP-12b

Teaching experience

Teaching assistant - Università degli studi di Padova

2023-2024 **Astrophysics Laboratory 2**, *Corso di Laurea magistrale in Astrophysics and Cosmology*,
SUPERVISOR Prof. Luca Malavolta; Duration: 24 hrs

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SUPERVISOR Prof. Luca Malavolta; Duration: 24 hrs

Accepted Observing Proposals (*) MARKS PI and (**) LEAD CO-I

CHEOPS Guest Observers Programme

- o (*) Transit timing variations of V1298 Tau b: a step forward to decipher the elusive architecture of the infant multi-planet system V1298 Tau. (**60 orbits**, GO 0033)

INAF AOT49 call

- o (*) The search for orbital decay around three TESS hot Jupiters (**100hrs** of REM, 49-63)

NEOSSat Science Guest Observation (GO) Program Cycle 7

- o (**) Uncovering the true period of the enigmatic V1298Tau e (PI Christopher Mann)

Workshops & Other experiences

- o **Sagan Exoplanet Summer Hybrid Workshop** on "Exoplanet Science in the Gaia Era"
- o **OPR 2023 Proposal Writing School**
- o **EANA 2024 Student LOC member**

Skills

Languages

Italian Native
English IELTS 7 (CEFR LEVEL: C1)
Espanol Basic

Astronomical data anlysis softwares

TopCat
SAO Image DS9

Public Outreach

Night of the researchers (Notte dei ricercatori) -Veneto Night 2022, Padova Italy

Night of the researchers (Notte dei ricercatori) -Veneto Night 2023, Padova Italy