

Personal information

Family Name: Tortorelli

First Name: Luca

Affiliation: University Observatory Munich, Ludwig-Maximilians University (LMU) Munich, Scheinerstr. 1, 81679, Munich, Germany

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Outreach page: <https://www.geopop.it/author/lucatoriorelli/>

Education

Ph.D.:

- Institution: Institute for Particle Physics and Astrophysics, ETH Zurich, Switzerland, 09/2016 - 07/2021.
- Thesis title: "Measurement of galaxy population properties with forward-modeling and Approximate Bayesian computation".
- Advisors: Prof. Dr. Alexandre Refregier & Prof. Dr. Adam Amara.

Master's Degree:

- Institution: Dipartimento di Fisica "Ettore Pancini", Università degli Studi di Napoli "Federico II", Italy 10/2013 - 07/2016, Summa cum Laude.
- Thesis title: "The Kormendy relation of galaxies in clusters of the CLASH-VLT survey".
- Advisors: Prof. Dr. Amata Mercurio & Prof. Dr. Maurizio Paolillo.

Bachelor's Degree:

- Institution: Dipartimento di Fisica "Ettore Pancini", Università degli Studi di Napoli "Federico II", Italy, 10/2009 - 06/2013, Summa cum Laude.
- Thesis title: "Ellipticity Measurements in KiDS Survey Images Aimed at The Study of Gravitational Lensing".
- Advisors: Prof. Dr. Massimo Capaccioli & Prof. Dr. Nicola Napolitano.

Publication list

ADS library: <https://ui.adsabs.harvard.edu/public-libraries/QxeQDRpHRCiAYWtkVLvgmA>

Research career

Current position

Name and Address of the Employer: Prof. Dr. Daniel Gruen, Universitaet Sternwarte der Ludwigs-Maximilians-Universitaet Muenchen, Scheinerstr. 1, 81679, Munich, Germany

Start and End Dates of the Contract: 10/2021 - Present

Professional Status: Post-doctoral Researcher

Employment history

03/2023-Present: Freelance science outreach writer at "Geopop", Milan, Italy

10/2021-Present: Post-doctoral researcher, Universitaet Sternwarte Muenchen, Germany

09/2016 - 09/2021: Ph.D. student, Institute for Particle Physics and Astrophysics, ETH Zürich, Switzerland

09/2015 - 12/2016: INAF Associate, INAF Osservatorio Astronomico di Capodimonte, Italy

09/2012 - 12/2012: Didactic laboratory technician and Library Assistant, Dipartimento di Fisica "Ettore Pancini", Università degli Studi di Napoli "Federico II", Italy

Activities in the Research system

Committee involvement

2024-Present: Member of the "Collaboration Council" of the LSST Dark Energy Science Collaboration (DESC).
2024-Present: Member of the "Project Office" of the 4MOST "Wide Area Vista Extragalactic survey".
2023-Present: Member of the "Membership Committee" of the LSST Dark Energy Science Collaboration (DESC).

Collaboration membership

2022-Present: 4MOST science collaboration.
2022-Present: Dark Energy Spectroscopic instrument (DESI) collaboration.
2021-Present: LSST Dark Energy Science Collaboration (DESC).
2021-Present: Dark Energy Survey (DES) collaboration.
2017-Present: Physics of the Accelerating Universe (PAU) survey collaboration.
2015-Present: CLASH-VLT collaboration.

Scientific publication reviewing

2022-Present: Review Editor of the Extragalactic Astronomy section of the "Frontiers in Astronomy and Space Sciences" journal.
2021-Present: Reviewer for scientific publications in the "Monthly Notices of the Royal Astronomical Society" journal.

Academic self-governance

2024-Present: Co-lead of the Technical Working Group "SED Modelling and Galaxy Properties" for the 4MOST survey "Wide Area VISTA Extragalactic Survey (WAVES)".
2023: Post-doc representative at University Observatory Munich, Munich, Germany.

Telescope operation experience

2019: Observing run (4 nights) at the William Herschel Telescope for the Physics of the Accelerating Universe Survey, La Palma, Spain.
2018: Observing run (3 nights) at the William Herschel Telescope for the Physics of the Accelerating Universe Survey, La Palma, Spain.
2017-2020: Telescope Operator and telescope manual writer of the VP ASL-Astro HPP Telescope at ETH Zurich, Zurich, Switzerland.

Observing proposals

2020: ESO 0102.A-0640, UT4-Yepun, MUSE, 12h, Co-I.
2019: ESO 0101.A-0470, VST, OMEGACAM, 48h, Co-I.
2017: ESO 099.B-0242, UT4-Yepun, MUSE, 1n, Co-I.

Organisation of academic events

2024: Creator and main organizer of the "2nd LMU-ETH joint workshop", Zurich, Switzerland. **2023:** Creator and main organizer of the "1st LMU-ETH joint workshop", Munich, Germany. **2021-Present:** Organizer of the "Modern Statistics of Galaxies" seminar series at LMU Munich, Munich, Germany.

Teaching and mentoring

Physics and Astrophysics courses

"Modern statistics of galaxies" seminar: advisor for Bachelor and Master's students presentation on latest research topics, University Observatory Munich, LMU Munich, 10/2021 - Present.
"Astrophysical Lab" class: design and supervision of "galaxy evolution" experiment for Bachelor and Master's students, University Observatory Munich, LMU Munich, 10/2022 - Present.
"Observational Methods for Galaxy Surveys" class: co-lecturer and exercise class head, University Observatory

Munich, LMU Munich, 04/2022 - Present.

"Astrophysical Lab" class: supervision of "interferometry" experiment for Bachelor and Master's students, University Observatory Munich, LMU Munich, 04/2022 - 07/2022.

"Astrophysical Lab" class: supervision of "planetary nebulae" experiment for Bachelor and Master's students, University Observatory Munich, LMU Munich, 10/2021 - 01/2022.

"Cosmological Probes" class: co-lecturer and exercise class head, ETH Zürich, 09/2020 - 12/2020.

"Advanced Astrophysics Laboratory" class: telescope operator, co-lecturer, design of telescope manual, supervision of Master's students lab classes, ETH Zürich, 09/2017 - 08/2020.

"Beginners Physics Laboratory" class: supervision of basic physics experiment for Bachelor's students, ETH Zürich, 09/2016 - 05/2017.

Student supervision

Master's thesis: Johanna Glueck, University Observatory Munich, LMU Munich, 08/2025-Present.

PhD thesis: Nikolas Frediani, University Observatory Munich, LMU Munich, 10/2024-Present.

Master's thesis: Jizhao Qin, University Observatory Munich, LMU Munich, 06/2024-Present.

Bachelor's thesis: Johanna Glueck, University Observatory Munich, LMU Munich 03/2024 - 07/2024.

Bachelor's thesis: Elsa Dejby, University Observatory Munich, LMU Munich 03/2024 - 07/2024.

Master's thesis: Benjamin Csizi, University Observatory Munich, LMU Munich, 10/2021 - 08/2022.

Bachelor's thesis: Paulina Contreras, University Observatory Munich, LMU Munich 04/2021 - 08/2022.

Semester project: Michael Blanc, ETH Zürich, 09/2020 - 12/2020.

Semester project: Pascal Hitz, ETH Zürich, 03/2020 - 06/2020.

Observational project: support students' observation at the ETH Zürich student telescope for observations of exoplanets, [press release](#), ETH Zürich, 10/2019.

Master's thesis: Peter Strattman, ETH Zürich, 03/2019 - 09/2019.

Semester project: Beatrice Moser, ETH Zürich, 03/2018 - 06/2018.

Teaching material

"Astrophysical Lab" manual: designed and wrote the [manual](#) of a new experiment on "Measuring the star-forming main sequence of COSMOS galaxies", University Observatory Munich, LMU Munich.

"VP ASL-Astro HPP Telescope" manual: designed and wrote the [manual](#) for the 50 cm student telescope at ETH Zürich, ETH Zürich.

"VP ASL-Astro HPP Telescope" data reduction manual: designed and wrote the [data reduction manual](#) for the 50 cm student telescope at ETH Zürich, ETH Zürich.

Academic distinctions

I was invited speaker at the Institute astrophysics colloquia of Institute of Cosmology and Gravitation Portsmouth, University of Western Australia ICRAR, Ruhr-Universitaet Bochum, Hamburg Observatory, and Vienna University. Awarded a travel grant for the 2025 IAUS conference 397 in Athens.

Outreach

Science outreach writer: authored more than 200 outreach articles on space and astronomy for the leading italian outreach platform "[Geopop](#)", Milan, Italy.

Outreach experiments: "ETH Scientifica", ETH Zürich, Zürich, Switzerland, 09/2017.

Outreach experiments: "Città della Scienza", Naples, Italy, 05/2015.

Outreach experiments: "Astrokids", INAF Osservatorio Astronomico di Capodimonte, Naples, Italy, 04/2015.

Outreach experiments: "MSC Lirica Cruise", Italy, 10/2014.

Outreach experiments: "Città della Scienza", Naples, Italy, 05/2014.

Outreach experiments: "European Researcher's Night", INAF Osservatorio Astronomico di Capodimonte, Naples, Italy, 09/2013.

Outreach experiments: "Città della Scienza", Naples, Italy, 05/2013.

Languages

Italian: Mothertongue

English: Very fluent, used in everyday research work.

French: basic understanding.

German: basic understanding.