

Michele Catone

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Education

PhD	University of Padova , Astronomy	Nov 2025 - Currently
	<ul style="list-style-type: none"> Thesis Title: <i>Revealing the Dust-Obscured Nature of High-Redshift Galaxies with MIRI-JWST</i> 	
MSc	University of Padova , Astrophysics and Cosmology	Dec 2023 - Sep 2025
	<ul style="list-style-type: none"> Score: 110/110 cum laude; <i>New advances in the derivation of the physical parameters of distant galaxies with MIRI/JWST photometry</i> Award badge Thesis Scientific research techniques and data analysis in cooperation with other students Presentation of scientific papers related to astrophysics concepts acquired during lectures Computational and numerical methods, including Bayesian inference, to handle astrophysical data Achievement of language proficiency "English B2 Productive skills" Award badge 	
BS	University of Padova , Astronomy	Oct 2019 – Dec 2023
	<ul style="list-style-type: none"> Score: 96/110, <i>Recent advances on the formation of galaxies at the cosmic dawn revealed by spectroscopic investigations from the James Webb Space Telescope</i> Award badge Thesis Group projects aimed at learning the main scientific research techniques and data analysis using Python scripts Physical processes in cosmic environments and main investigation techniques Classical and modern physics (Special Relativity, Quantum Mechanics) 	
HS	Liceo Scientifico Benedetto Varchi , Montevarchi (AR), Italy	Sept 2014 – June 2019

Extracurricular Activities

INAF PhD School Francesco Lucchin , From the Solar System to high redshift galaxies	Asiago (VI), Italy
<ul style="list-style-type: none"> Theories of planetary formation Environments of the outer planetary systems and the processes within Advanced observational techniques for studying small Solar System bodies Cosmological models and theories of universe formation The Era of Reionization, a crucial phase in the universe's history Characterization of the physical properties of high-redshift galaxies and differences with the local universe 	26 May 2025 – 31 May 2025
Open day Bachelor's Degree in Astronomy . Presented the degree programme to high school students.	Padova, Italy 30 Apr 2025
Journey to the Origin of the Universe . Description of the ESA mission Euclid to lower secondary school students through related activities.	Grumolo delle Abbadesse (VI), Italy 11 Oct 2024

International Max Planck Research School for Astronomy & Cosmic Physics - University of Heidelberg, Summer School - New Opportunities to Test Cosmology

Heidelberg, Germany
2 Sept 2024 – 9 Sept 2024


- Large Scale Structure cosmology
- Gravitational lensing
- ESA Euclid mission
- Theory and observation beyond the standard Λ CDM model
- Machine Learning and Simulation Based Inference


EAS meeting volunteer. Contributed to the organization of the activities planned for the annual meeting.

Padova, Italy
1 July 2024 - 5 July 2024

Attendance to INAF-OAPd seminars

Publications

Castellano, M. et al. (2025); [arXiv:2504.05893](#) 

Gandolfi, G. et al. (2025b); [arXiv:2509.01664](#) 

Technologies

Languages: Python, \LaTeX , Markdown

Technologies: Main Operative Systems (Windows, Linux, MacOS), Git/GitHub, IRAF, SaolImageDS9, QFitsView, SWARP, HEASoft, SExtractor, A-PHOT, T-PHOT, CIGALE, BAGPIPES