

Costanza Bellucci

EDUCATION AND TRAINING

11/2024 - CURRENT

PH.D. IN PHYSICS INFN - Istituto Nazionale di Fisica Nucleare

Supervisors: Prof. Luca Lamagna, Dr. Alessandro Paiella

Research: development of a W-band on-chip Fourier Transform Spectrometer based on Kinetic Inductance Detectors

(KIDs) for the study of Cosmic Microwave Background spectral distortions.

09/2022 - 10/2024 Rome, Italy

M.SC. IN ASTRONOMY AND ASTROPHYSICS Sapienza University of Rome

Thesis: "A mm-wave on-chip FTS based on KIDs for cosmological applications"

Supervisors: Prof. Luca Lamagna, Dr. Alessandro Paiella

Final grade 110/110 cum laude

09/2019 - 10/2022 Rome, Italy

B.SC. IN PHYSICS Sapienza University of Rome

Thesis: "Axions and ALPs: theoretical foundations and experimental investigations"

Supervisor: prof. Marco Vignati

Final grade 110/110 cum laude

2019 - 09/2020 Rome, Italy

MERIT-BASED SCHOLARSHIP Sapienza University of Rome

Full tuition exemption awarded for academic excellence.

09/2014 - 06/2019 Rome, Italy

CLASSICAL HIGH SCHOOL DIPLOMA Liceo classico statale Francesco Vivona

DELF B1 French certification (2015).

Won the ancient Greek translation contest "Piccolo Agone Placidiano" (2018).

TOEFL English exam (2018).

Final grade 100/100 cum laude

INTERNSHIPS AND EDUCATIONAL ACTIVITIES

14/04/2025 - 16/04/2025

UniVersuum VI: Tracing a Communal Path for the Italian Cosmology Community Workshop - Padova

Attended plenary sessions and delivered a talk titled "On-Chip Fourier Transform Spectroscopy for Astrophysical Observations".

25/09/2023 - 29/09/2023

Italian School of Radioastronomy - Lecce

Included lectures with key scientific case studies and hands-on sessions with data from the main instruments currently in operation (ALMA, EVN, EHT, LOFAR, MeerKAT, VLA, VLBA).

Organized by INAF and University of Salento.

Link https://sites.google.com/inaf.it/scuolaitalianaradioastronomia/home

19/06/2023 - 23/06/2023

Observational Campaign at Effelsberg Radio Telescope - Bad Münstereifel (Germany)

Participated in an observational campaign focused on the jet/outflows connection in variable broad absorption line quasars (BAL QSOs).

Proposed and supervised by Dr. Gabriele Bruni (INAF) and Dr. Diego Tuccillo (IFCA, Spain).

11/06/2018 - 15/06/2018

INFN-LNF Summer School 2018

Attended lectures on Particle Physics and Cosmology and participated in experimental activities in biomedical applications on nanomaterials.

Organized by Istituto Nazionale di Fisica Nucleare-Laboratori Nazionali di Frascati (INFN-LNF).

Link https://edu.lnf.infn.it/stage-di-nanotecnologie-2018/

12/06/2017 - 23/06/2017

INFN-LNF Summer School 2017

Theoretical and experimental training in bio-nanotechnologies.

Organized by Istituto Nazionale di Fisica Nucleare-Laboratori Nazionali di Frascati (INFN-LNF).

Link https://edu.lnf.infn.it/stage-di-nanotecnologie-2017/

16/12/2016 - 18/12/2016

Winter Campus of Math, Physics, Astrophysics and New Technologies - Bardonecchia (TO)

Featured seminars on galaxy formation and evolution, with night sky observations and group research activities. Organized by University of Turin.

WORK EXPERIENCE

SELF-EMPLOYED PRIVATE TUTOR – 2017 – 2021

Provided personalized tutoring in Mathematics, Physics, Latin, Greek and Italian Literature for high school students

SKILLS

Astronomical data processing software: CASA; CARTA | Electromagnetic field simulation software: ANSYS HFSS, Sonnet | C programming | Basics of Python and Fortran programming | Text processing (Word, LaTeX) | Microsoft Excel | Microsoft Powerpoint

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production Spoken interaction		
ENGLISH	C1	C1	C1	C1	C1
FRENCH	B1	B1	B1	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

HOBBIES AND INTERESTS

Playing the piano.

Reading, especially psychological and crime novels.

Rhythmic gymnastics at national level until 2019.

Making handmade crafts (crochet, embroidery, jewelry).

10/06/2025

F.to Costanza Bellucci