

Barbara De Lotto

Current position

Associate Professor, Department of Mathematics, Computer Science and Physics, University of Udine.

Scientific sector: Fis/01 Experimental Physics.

National Scientific Qualification (ASN) as Full Professor (SC 02/A1 *Experimental Physics of fundamental interactions*).

Research field: experimental High Energy Physics at Colliders, Very High Energy Gamma-ray Astrophysics.

Education and training

Maturità classica.

Laurea in Physics (*summa cum laude*), University of Padova, Italy 1983.

Specialization, *Laboratoire de l'Accélérateur Linéaire, Université Paris 11, Orsay* (France).

Post-doc, *Istituto Nazionale di Fisica Nucleare* (INFN), Pavia, Italy.

Associate, *Istituto Nazionale di Fisica Nucleare* (Padova 1983, Pavia 1986 - 1988, Trieste since 1989).

Researcher and Assistant Professor, University of Udine, Italy, since 1989.

Visiting Scientist, CERN, Geneva, Switzerland, Academic Year 1995-96.

Scientific activity and responsibilities

2004: Scientific responsible of the local research unit for a project financed by the Italian Ministry for Research and University.

Since 2005 responsible of the local research unit of INFN for the MAGIC experiment (Major Atmospheric Gamma ray Imaging Cherenkov telescopes).

2012-2017 INFN national scientific responsible of the MAGIC experiment at the European Astrophysics Observatory of Roque de los Muchachos, Canary Islands, Spain.

Member of the Experts list of the Italian Ministry for Education, University and Research for research activities in the field of Natural Sciences and Engineering and of the Research Executive Agency for the European Commission. Served as:

- "Peer reviewer" for the Italian national research evaluation program VQR 2004-2010.
- "Expert evaluator" for the call Horizon2020 - COMPET-5-2015: "Scientific exploitation of astrophysics, comets, and planetary data" of the European Commission (contract CT-EX2002B002665-101).
- Evaluator and rapporteur of the Italian PRIN2015 projects.

- “Expert evaluator” and rapporteur for the call MSCA IF 2017 of the European Commission (contract CT-EX2002B002665-103).
- “Expert evaluator” for the call Space 2020 Evaluation - Topic 30-SCI: Scientific data exploitation of the European Commission.
- “Expert evaluator” for the Severo Ochoa Centres of Excellence and María de Maeztu Units of Excellence Programme of the Spanish Ministerio de Ciencia e Innovacion
- “Expert evaluator” for the call of the of the Italian PRIN2020 projects.

European projects coordination

Scientific coordinator of a three years project connecting eighteen European universities and financed by the European Union (2012-1-IT2-ERA10-38875): *International School on Particle Physics, Astrophysics and Cosmology*.

Scientific production

Author of > 700 scientific articles on international peer reviews of primary importance (H-index = 111, InSPIRE database).

~ 30 invited talks in major international conferences (International Conference on High-Energy Physics, Meeting of the Division of Particles and Fields of the American Physical Society, SLAC Summer Institute on Particle Physics, Stanford, USA).

Teaching activity

Since 1997 Professor of General Physics for the Faculty of Sciences and Engineering of the University of Udine.

Member of the International Doctorate Network in Particle Physics, Astrophysics and Cosmology (<http://www.idpasc.lip.pt>) Advisory Committee.

Member of Collegio docenti del Dottorato in Informatica e Scienze Matematiche e Fisiche presso l'Università di Udine (2016 -). Fino al 2013 membro del Collegio dei docenti del Dottorato in Matematica e Fisica.

PhD theses supervisor

- Tiziano Lenisa, “Studio di Gamma-Ray Bursts con il telescopio MAGIC”, Dottorato in Matematica e Fisica, Università di Udine, XX ciclo (maggio 2008).
- Francesco Dazzi, “A new stereoscopic “Sum-Trigger-II” for the MAGIC Telescopes”, Dottorato in Matematica e Fisica, Università di Udine, XXIV ciclo (giugno 2012).
- Michele Peresano, “MAGIC telescopes observations at Very Large Zenith angles and the first neutrino-gamma association”*, Dottorato in Scienze Matematiche, Informatiche e Fisiche, Università di Udine, XXX ciclo (settembre 2018).
* *Premio per la migliore comunicazione della sessione al congresso nazionale della Società Italiana di Fisica 2017.*
- Alice Donini, “Monte Carlo simulation and data analysis of sky observation mode with the Cherenkov Telescope Array”, Dottorato in Scienze Matematiche, Informatiche e Fisiche, Università di Udine, XXXIII ciclo (maggio 2021).

- Davide Miceli, “Multi-wavelength afterglow numerical code and data analysis of MAGIC very high energy emission from gamma-ray bursts”, Dottorato in Scienze Matematiche, Informatiche e Fisiche, Università di Udine, XXXIII ciclo (maggio 2021).
*Premio Giovanni Bignami 2021 istituito dalla Società Astronomica Italiana (SAI) e dalla Società Italiana di Fisica (SIF).
* UniUD PhD Award 2022

PhD theses co-supervisor

- Nijil Mankuzhiyil, "MAGIC Gamma-Ray observations of distant AGN and a study of source variability", Dottorato in Matematica e Fisica, Università di Udine, XXII ciclo (maggio 2010).
- Valeria Scapin, "Observations of Gamma-Ray Bursts afterglows with the MAGIC telescope", Dottorato in Matematica e Fisica, Università di Udine, XXII ciclo (maggio 2010).
- Michele Palatiello, “The Cosmic-ray Electron Spectrum Measured with the MAGIC Telescopes”, Dottorato in Matematica e Fisica, Università di Udine, XXVII ciclo (maggio 2015).

PhD committee

- Gessica De Caneva, "Studies of Active Galactic Nuclei with the MAGIC telescopes", 2015, Humboldt Universität zu Berlin, Germany.
- Kathrin Mallot, 2017, "The Energy Spectrum of Cosmic Electrons measured with the MAGIC telescopes", Humboldt Universität zu Berlin, Germany.

Languages Mother tongue: Italian. Other languages: English, French, Spanish, German.

Udine, 10 febbraio 2020

Barbara Lott