

Cesare Barbieri - **Short CV**

e-mail: cesare.barbieri@unipd.it

personal web page; <http://www.cesare-barbieri.it>

University Web page: <http://www.astro.unipd.it/barbieri/> (updated to end of 2013).

ORCID 0000-0002-6257-9076

Born in San Giovanni in Persiceto (BO) the 27th of November, 1942.

Married with Giovanna, three sons, three grandsons and one granddaughter.

Laurea in Physics, July 1965, University of Bologna, 110/110 summa cum laude.

Astronomer, Astronomical Observatory of Padova from 1966 to 1971.

Libera Docenza in Astrophysics 1971.

Full Professor of Astronomy University of Padova from Nov. 1976 to Sept. 30, 2013

Professor Emeritus of Astronomy, University of Padova, since Oct. 1, 2013.

Post-Doc Fellow at McDonald Observatory (Texas, USA) and Australian National University in Canberra. Visiting Professor Boston University.

Teaching:

Astronomy and Astrophysics for Courses of Astronomy, Mathematics, Aerospace Engineering, PhD Schools

Invited lectures in several Institutes in Europe and USA.

Director:

1985-91 Padua and Asiago Astronomical Observatories

1990-98 Telescopio Nazionale Galileo TNG (La Palma, Canary Islands, Spain)

2008-10 PhD School of Sciences Technologies and Measures for Space, Univ. Padova

2010-13 Galilean School of Higher Education, Univ. Padova

Committee Memberships:

1974-75 Committee CNR Tecniche di Analisi di Immagini estese alla Geofisica e all'Astronomia

1976-87 Scientific Committee of the CNR Institute of Radioastronomy

1977-'79 ESA Study Team of the astrometric satellite Hipparcos

1979-82 consultant of the Piano Spaziale Nazionale for Physics, Astronomy and Space Geophysics

1980-85 Chairman of the Scientific Committee for the National Telescope OAN

1987-89 Scientific committee for the USA-Italy-Germany COLUMBUS telescope (now LBT)

1987-93 Scientific committee of the Bologna Astronomical Observatory

1985-87 European Space Agency (ESA) Astronomy Working Group
1991-94 ESA Space Science Advisory Committee and SC Horizon 2000+
1988-92 Scientific and Technical Committee of the European Southern Observatory (ESO)
1994-95 Team NASA for the selection of the space missions Discovery
2001 Evaluation committee of Estonian Universities
2002-2007 Board European School NEON
2004-2008 Board Master in Applied Optics
2013 -2019 Evaluation Committee for Russian astrophysical programs
2013-2021 Scientific Committee of the School of Higher Education 'G. Leopardi', University of Macerata

Main Projects and contracts:

1977-94 ESA Faint Object Camera on board the NASA Hubble Space Telescope (HST)
1980-87 Halley Multicolor Camera on board the ESA cometary mission GIOTTO
1998 PRIN *Collisional, dynamical and physical evolution of bodies of the solar system*;
2001 PRIN *Search and dynamical and physical studies of NEAs and other minor bodies of the solar system*
2002 PRIN *Digitization of photographic archives of the Italian Astronomical Observatories*
2006 PRIN *Astrophysics to the Quantum Limits*
2004-05 ESO *Quanteye (Quantum Astronomy)*
2005-06 ESA *QIPS (Quantum Communications)*
2007-09 ESA/EC *Harrison (utilization of the time distributed by the GALILEO GNSS for Astronomy)*
2007-10: Project of Excellence Fondazione Cariparo *Quantum Properties of Light and Astronomy*
2009-13: Strategic Program Padova Univ. *Quantum Future (Quantum Astronomy and Quantum Communications)*
1995 -2017: Lead Scientist of OSIRIS imaging system on board the ESA cometary mission Rosetta

Main Research Themes

- Quasars and Quasi Stellar Objects (astrometry and optical identification of radio-sources; optical variability; discovery of non-radio emitting quasi-stellar objects through multicolor photometry)

- Astrometry and imaging of Pluto, Discovery and characterization of comets, asteroids, moons of planets, Trans-Neptunian Objects. Lunar and Herman transient atmospheres. Diffuse Sodium in the solar system. Upper terrestrial atmosphere.
- Digitization of the Italian and Vatican Astronomical Archives (variability of stars and nebulae; moving objects)
- Telescopes and Instrumentation for ground and space (1.8m Asiago; 3.5m TNG Roque de los Muchachos; ultra-rapid single photon photometers Aqueye for Asiago and Iqueye for NTT, TNG and WHT; quantum sender/receiver for the Matera ASI telescope. ESA Faint Object Camera for the Hubble Space Telescope. Halley Multicolour Camera for the ESA Giotto cometary mission. OSIRIS camera for the ESA cometary Rosetta mission)
- Quantum Astronomy (best light curves of optical pulsars; most accurate determination of relationship between optical vs. Radio. X and Gamma rays emissions for Crab and Large Magellanic Cloud pulsars: distribution of entangled photons; resurrection of Hanbury Brown – Twiss Intensity Interferometry)

The personal library on the SAO/NASA Astrophysics Data System (ADS)

http://adsabs.harvard.edu/cgi-bin/nph-abs_connect?library&libname=cesare.barbieri&libid=5a44256190

(updated 2017) reports 270 publications selected among a total of about 700 records with the name of the underwriter as an author.

Books:

Lezioni di Astronomia (Zanichelli), 1999

La nascita dell'Astrofisica nel XIX secolo (CLEUP), 2000

Fundamentals of Astronomy (Taylor and Francis), 2006, in English, second edition 2020

Astronomia Perché? Editrice Compositori, 2009

A brief Introduction to the Search of Extra-terrestrial life, (CRC Press), 2019, in English

Chapter '*L'influenza del Cristianesimo sullo sviluppo dell'Astronomia*' in the volume "*dopo 2000 anni di Cristianesimo*" (CEI, Mondadori).

Chapters in several Italian Encyclopaediae (Treccani, EST Mondadori, etc.),

Editor of Proceedings/Conferences:

European Satellite Astrometry (ESA 1970)
The Three Galileos (1997 Kluwer)
Earth-Moon Relationships (2000 Kluwer)
2nd ESA/COSPAR GALILEO GNSS (2008 ESA publication)
400th Anniversary of the discovery of the Medicean Moons, IAU Symposium 269
held in Padua (2010 Cambridge University Press),
From Giotto to Rosetta, 30 years of cometary science from ground and space
(Barbieri C., Someda C:G. eds. Accademia Galileiana di Padova, ISBN 9-78-88-
98216—09-55)
High Time Resolution Astrophysics, Marostica 27-28 November 2017 (see:
<http://web.pd.astro.it/zampieri/htrameeting/HTRA.html>)

Outreach

Organizers of scientific exhibits for the general public:

- 1986: Halley and Giotto (Padova and other Italian cities)
- 1993: *Galileo*, in the frame of the celebrations for the Anniversary of the Complutensis University (Madrid, Spain)
- 1996: *from Galileo to the Galileo Telescope*, in the frame of the events for the dedication of the TNG (La Palma, Canary Islands)
- 1997: *Viaggio nel Cosmo* (Padova and Rome, 1997)
- *Magister Giotto* (Venice, Jul-Nov. 2017)

Speaker in a large number of popular conferences in Italy and abroad.

Prizes and Honours:

NASA Group Award for FOC/HST.
ESA Certificate of Recognition for Osiris(Rosetta)
Prize Lacchini of the Italian Amateur Astronomer association
for outreach activity
Gold Medal of Italian Ministry for Education.
Commendatore of the Italian Republic.
Sigillum of the City of Padova
Member and past president of the Rotary Club Padova Nord, 2 PHFs.