



Cesare Barbieri

Professor Emeritus of Astronomy
University of Padova, Italy

Curriculum Vitae

English, rev. 2024_08_01

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Asteroid nr.13993 (Cesarebarbieri)

Only some representative publications are mentioned here. The complete list since 1966 is in:

<http://www.cesare-barbieri.it>

(to be updated)

Born: San Giovanni in Persiceto (Bologna, Italy), 27/11/1942

Home address: via Livorno 12A, 35142 Padova, Italy

Mobile Phones: +393482718731, +393351011959

Education:

Maturità Classica, liceo classico M. Minghetti, Bologna

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

Career

- Astronomer, Astronomical Observatory of Padova from Sept. 1, 1966 to sept. 30, 1971
- Libera Docenza in Astrophysics 1971
- Aggregate Professor from Oct. 1, 1973 to Oct. 31, 1976, University of Padova
- Full Professor of Astronomy, University of Padova, from Nov. 1, 1976 to Sept. 30, 2013
- Emeritus of Astronomy, University of Padova, since Oct. 1, 2013

Post-Doc Fellow at McDonald Observatory (Texas, USA) 1968-69 and Australian National University in Canberra 1973.

Visiting Professor at Boston and Boulder Universities (USA) in several dates.

University teaching: (from 1971 to 2016)

- Analysis and Calculus, University of Mogadishu (Somalia), 1971
- Astronomy and Astrophysics for Graduate and Master Courses of Astronomy, Mathematics, Aerospace Engineering
- President of the Consiglio di Corso di Laurea in Astronomia in 1976-77 and 1980-83.

- Astronomical Optics in PhD Schools of Astronomy and Ophthalmology

Invited lecturer in several Institutes in Europe, Abu Dhabi and USA.

Invited lecturer 2016-2023) for the *Master in Sciences and Faith*, Pontificio Ateneo Regina Apostolorum, Rome

Director:

- Vice-director 1980-1985 and Director 1985-1991 Padua and Asiago Astronomical Observatories
- 1987-98 Telescopio Nazionale Galileo TNG (La Palma, Canary Islands, Spain)
- 2008-10 PhD School of Sciences, Technologies and Measurements 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 for the astrometric satellite Hipparcos
- 1979-82 consultant of the Piano Spaziale Nazionale for Physics, Astronomy and Space Geophysics
- 1980-85 Chair 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 NASA Committee for the selection of the first space missions Discovery
- 2001 Evaluation committee of Estonian Universities
- 2002-07 Board European School NEON
- 2004-08 Board Master of Applied Optics, University of Padova
- 2013 and 2019 Evaluation Committee for Russian astrophysical programs
- 2013-21 Scientific Committee of the School of Higher Education ‘G. Leopardi’, University of Macerata, Italy

Main Projects and contracts:

- 1977-94 Member of the ESA Instrument Definition Team for the Faint Object Camera on board the NASA Hubble Space Telescope (HST)
- 1980-87 Scientific and managerial responsible to the Piano Spaziale Nazionale (ASI did not exist at the time) for the Italian hardware of the Halley Multicolor Camera on board the ESA cometary mission GIOTTO
- 1988 -1998 Responsible to the Ministry of Education and University MIUR (INAF did not exist at the time) for the design and construction of the 3,5m Telescopio Nazionale Galileo (TNG) on the Roque de los Muchachos, La Palma, Canary Islands
- 1998 P.I. PRIN *Collisional, dynamical and physical evolution of bodies of the solar system*

- 2001 P.I. PRIN *Search and dynamical and physical studies of NEAs and other minor bodies of the solar system*
- 2002 P.I. PRIN *Digitization of photographic archives of the Italian Astronomical Observatories*
- 2006 P.I. PRIN *Astrophysics to the Quantum Limits*
- 2004-05 P.I. ESO contract for *Quanteye (Quantum Astronomy)*
- 2005-06 Member ESA contract *QIPS (Quantum Communications in Spaces)*
- 2007-09 P.I. of ESA/EC contact *Harrison (utilization of the time distributed by the GALILEO GNSS for Astronomy)*
- 2007-10 P.I. of the first Project of Excellence financed by the Fondazione Cassa di Risparmio di Padova e Rovigo (Cariparo) *Quantum Properties of Light and Astronomy*
- 2009-13 Member of Strategic Program of the Padova University *Quantum Future (Quantum Astronomy and Quantum Communications)*
- 1995 - 2017 Responsible to ASI for the design, construction and operation of the Italian hardware and software of the OSIRIS imaging system on board the ESA cometary mission Rosetta and Lead Scientist of the Osiris International team
- 2022-24 Consultant to ATHR (Saudi Arabia) for the design of a large mirascope for Wadi Alfau (AIUla) and the construction of a reduced scale mock-up

Main Research Themes

- **Quasars, Radio Quiet Quasi-Stellar Objects, Seyfert galaxies and Active Galactic Nuclei:**

Barbieri C, Bertola F (1972) *Identification of 5C 4 radio sources*, **MNRAS.156, 399**

Barbieri C; Benvenuti P (1974) *Studies of blue objects at high galactic latitudes. 3. Faint blue objects in the field of BD +15 2469*, **Astron&Astrophys Suppl. 13, 269**

Barbieri C; Romano, G; Di Serego S; Zambon M (1977) *The optical variability of 3C345*, **Nature 268, 318**

Barbieri C, Vio R, Cappellaro E, Turatto M (1990) *The Optical Variability of the Quasar 3C 446*, **The Astrophysical Journal 359, pagg.63-66**

La Franca F; Cristiani S; Barbieri C (1992) *The SA 94 QSO surveys. V - An UVx sample of 97 QSOs with B not greater than 19.9*, **The Astronomical Journal 103, 1062**

Vio R; Turolla R; Cristiani S; Barbieri C (1993) *A Stochastic Model for the Variability of NGC 6814*, **The Astrophysical Journal v.405, p.163, DOI: 10.1086/172349**

Barbieri C.; Rafanelli P; Schulz H and 18 more (1993) *Compact sub-arcsec structures of the double nucleus of NGC 6240 revealed with HST*, **Astron&Astrophys., Vol. 273, p. 1-5**

Deahrveng JM, Albrecht R, Barbieri C et al (1994) *The massive star content of the blue dwarf galaxy IZw 36 from Faint Object Camera observations*, **Astron&Astrophys. Vol. 288, p.413-42**

- **Solar system planets, comets and asteroids; diffuse sodium clouds of Mercury, Moon and Io (Medicean Moon of Jupiter)**

Binary dwarf planet Pluto-Charon

Gemmo A; Barbieri C (1994), *Astrometry of Pluto from 1969 to 1989*, **Icarus 108, 174, DOI: 10.1006/icar.1994.1051**,

Albrecht R; Barbieri C et al. (1994) *High-resolution imaging of the Pluto-Charon system with the Faint Object Camera of the Hubble Space Telescope*, **The Astrophysical Journal** **435**, L75-L78

Comets Halley and 67P Churyumov Gerasimenko, comets

Keller HU, Arpigny C, Barbieri C, Bonnet RM et al. (1986) *First Halley Multicolour Camera imaging results from Giotto*, **Nature** **321**, 320

Paresce, F; Sartoretti P; Albrecht R; Barbieri C et al. (1992) *Near-ultraviolet imaging of Jupiter's satellite Io with the Hubble Space Telescope*, **Astron&Astrophys.** vol. **262**, no. **2**, p. **617-620**.

Sierks H; Barbieri C; Lamy P L; Rodrigo R; Koschny D; Rickman H; Keller HU et al. (2015) *On the nucleus structure and activity of comet 67P/Churyumov-Gerasimenko*, **Science**, Volume **347**, Issue **6220**, article id. **aaa1044**

Barbieri C. (2017) *Comet 67P/C-G seen through Osiris, the eyes of Rosetta*, **Rendiconti Accademia Lincei**, **28 (2)**, 225-253, DOI: [10.1007/s12210-017-0618-y](https://doi.org/10.1007/s12210-017-0618-y)

Barbieri C., Bertini I. (2017) *Comets*, **La Rivista del Nuovo Cimento**, vol. **40**, issue **8**, pp. **335-409**. DOI: [10.1393/ncr/i2017-10138-4](https://doi.org/10.1393/ncr/i2017-10138-4)

Diffuse sodium clouds

Cremonese G, Thomas N, Barbieri C, Pernechele G (1992) *High Resolution Spectra of Io's neutral Sodium Cloud*, **Astron&Astrophys.** **256**, 286

Paresce F; Sartoretti P, Albrecht R, Barbieri C et al. (1992) *Near-ultraviolet imaging of Jupiter's satellite Io with the Hubble Space Telescope*, **Astron&Astrophys.** vol. **262**, no. **2**, p. **617-620**.

Contarini G; Barbieri C; Corrain G and 2 more (1996) *Spectroscopic observations of the sodium atmosphere of the Moon*, **Planetary and Space Science**, Volume **44**, Issue **5**, p. **417-420**. DOI: [10.1016/0032-0633\(95\)00118-2](https://doi.org/10.1016/0032-0633(95)00118-2)

Barbieri C, Verani S, Cremonese G, Sprague A, Mendillo M, Cosentino R, Hunten D (2004), *First observations of the Na exosphere of Mercury with the high-resolution spectrograph of the 3.5M Telescopio Nazionale Galileo*. **Planetary and Space Science** **52**, pp. **1169-1175**

Leblanc F; Barbieri C; Cremonese G; Verani S; Cosentino R; Mendillo M; Sprague A; Hunten D, (2006), *Observations of Mercury's exosphere: Spatial distributions and variations of its Na component during August 8, 9 and 10, 2003*, **Icarus**, Volume **185**, Issue **2**, p. **395-402**

Mangan o V, Leblanc F, Barbieri C, Massetti S, Milillo A, Cremonese G, Grava C (2009) *Detection of a southern peak in Mercury's sodium exosphere with the TNG in 2005*. **Icarus**, Volume **201**, Issue **2**, p. **424-431**

Asteroids from ground and Space, discovery, characterization, age

Hoffmann M; Pignata G; Barbieri C; Bertini I; Calvani M; Claudi R; Hahn G; Magrin S; Mottola S; Neukum G (2002) *The ADAS inner solar system project*, **ESA Publications Division**, ISBN **92-9092-810-7**, 2002, p. **797 - 800**

Marchi S, Lazzarin M, Magrin S, Barbieri C (2003) *Visible spectroscopy of the two largest known trans-Neptunian objects: Ixion and Quaoar*. **Astron&Astrophys** **408**, pp. **L17-L19**

Keller HU, Barbieri C, Koschny D, Lamy Pet al. (2010) *E-Type Asteroid (2867) Steins as Imaged by OSIRIS on Board Rosetta*, **Science** **327**, p. **190**

Sierks H; Lamy P; Barbieri C; Koschny D; Rickman H; Rodrigo R; A'Hearn M F; et al. (2012) *Images of Asteroid 21 Lutetia: A Remnant Planetesimal from the Early Solar System*, **Science**, Volume **334**, Issue **6055**, pp. **487-490 (2011)**

- **Digitization of the Italian and Vatican Astronomical Archives.**

Barbieri C; Blanco C; Bucciarelli B; Coluzzi R; di Paola A; Lanteri L; Li Causi, G; Marilli E; Massimino P; et al. (2003) *Digitization and Scientific Exploitation of the Italian and Vatican Astronomical Plate Archives*, **Experimental Astronomy**, v. 15, Issue 1, p. 29-43

Johnson JA; Winn JN; Rampazzi F; Barbieri C; Mito H; Tarusawa K; Tsvetkov M; Borisova A; Meusinger H (2005), *The History of the Mysterious Eclipses of KH 15D. II. Asiago, Kiso, Kitt Peak, Mount Wilson, Palomar, Tautenburg, and Rozhen Observatories, 1954-1997*, **The Astronomical Journal** 129, Issue 4, pp. 1978-1984

Omizzolo A; Barbieri C; Rossi C (2005), *3C 345: the historical light curve (1967-1990) from the digitized plates of the Asiago Observatory*, **MNRAS** 356, Issue 1, pp. 336-342.

- **Telescopes and Instrumentation for ground and space:**

- 182m Copernicus and 3.5m TNG

Barbieri C; Rosino L; Stagni R. (1974) *The 72-inch "Copernicus Telescope"*, **Sky and Telescope**, volume 47, page 298

Barbieri C (1997) *The Galileo Italian National Telescope and its Instrumentation*, **Experimental Astronomy** 7, 257 -B

Barbieri C, Ragazzoni R (2019) *Fron the NTT to the TNG, The La Silla Observatory - from the inauguration to the future.* Held 25-29 March, 2019 in La Serena, Chile. **Online at <http://www.eso.org/sci/meetings/2019/lasilla2019.html>, lasilla2019, id.3. DOI:10.5281/zenodo.3245244**

- Faint Object Camera for the Hubble Space Telescope:

NASA <https://nssdc.gsfc.nasa.gov/nmc/experiment/display.action?id=1990-037B-08>

ESA <https://sci.esa.int/web/hubble/-/17735-faint-object-camera>

- Halley Multicolour Camera and OSIRIS for the ESA Giotto and Rosetta cometary missions:

Keller HU; Arpigny C; Barbieri C; Benvenuti P; Biermann L; Bonnet RM; Cazes S; Colombo G; Cosmovici, CB; Delamere WA; and 10 coauthors (1981) *A Halley Multicolour Camera*, Scientific And Experimental Aspects Of The Giotto Mission, (Battrick,B. + Mort,J. Editors) Esa-Sp-169. June 1981. Pp. 105-117.

Ragazzoni R; Naletto G; Barbieri C; Tondello G (1995) *Optical design for the Rosetta wide-angle camera*, Proc. SPIE Vol. 2478, p. 257-268, Space Telescopes and Instruments, Pierre Y. Bely; James B. Breckinridge; Eds

Keller HU; Barbieri C; Lamy P; Rickman H; Rodrigo R; Wenzel K.-P; Sierks H; A'Hearn M F; Angrilli F; ei al. (2007) *OSIRIS-The Scientific Camera System Onboard Rosetta*, Space Science Reviews, Volume 128, Issue 1-4, pp. 433-506

- AquEye and IquEye quantum photometers for the Copernicus and 4m class telescopes

Barbieri C, Naletto G, Occhipinti T, et al. (2009) *AquEye, a single photon counting photometer for astronomy*. **Journal of Modern Optics** Vol. 56-2, pp. 261-272

Naletto G; Barbieri C; Occhipinti T et al. (2009) *IquEye, a single photon-counting photometer applied to the ESO new technology telescope*, **Astron&Astrophys. Volume 508, Issue 1, 2009, pp.531-539**

- **Orbital Angular Momentum (OAM)**

Tamburini F, Anzolin G,, Umbriaco G, Bianchini A, Barbieri C (2006) *Overcoming the Rayleigh criterion limit with optical vortices*, **Physical review letters** Vol 97m pp. 163903

Anzolin G, Tamburini F, Bianchini A, Umbriaco G, Barbieri C (2008) *Optical Vortices with starlight*, **Astron&Astrophys**, vol. 488-3, pp. 1159-1165, doi: [10.1051/0004-6361/200810469](https://doi.org/10.1051/0004-6361/200810469), selected for the Highlights of A&A for that year.

Anzolin G.; Tamburini F.; Bianchini A.; Barbieri C (2009) *Method to measure off-axis displacements based on the analysis of the intensity distribution of a vortex beam*, **Physical Review A**, vol. 79, Issue 3, id. 033845

Tamburini F, Mari E, Thidé B, Barbieri C, Romanato F (2011) *Experimental verification of photon angular momentum and vorticity with radio techniques*, **Applied Physics Letters** Volume 99, Issue 20, 14 November 2011, Article number 20410.

- **Optical Pulsars light curves**

Gradari S, Barbieri M, Barbieri C, Naletto G, Verroi E, Occhipinti T, Zoccarato P, Germanà C, Zampieri L, Possenti A. (2011). *The optical light curve of the LMC pulsar B0540-69 in 2009*, **MNRAS** Volume 412, Issue 4, pp. 2689-2694

Germanà C, Zampieri L; Barbieri C and 12 more (2012) *Aqueye optical observations of the Crab Nebula pulsar*, **Astron&Astrophys** Volume 548, id. A47, 7 pp, DOI:[10.1051/0004-6361/201118754](https://doi.org/10.1051/0004-6361/201118754)

Zampieri L; Čadež A; Barbieri C; Naletto G; Calvani M; Barbieri M; Verroi E; Zoccarato P; Occhipinti T (2014) *Optical phase coherent timing of the Crab nebula pulsar with Iqueye at the ESO New Technology Telescope*, **MNRAS** Volume 439, Issue 3, p.2813-2821,

Fermi LAT Collaboration; Ackermann M; Albert A; Baldini L; Ballet J; Barbiellini G; Barbieri C; Bastieri D; Bellazzini R; Bissaldi E; and 107 coauthors (2015) *An extremely bright gamma-ray pulsar in the Large Magellanic Cloud* **Science** Volume 350 Issue 6262 pp 801-805 (2015)

Spolon A; Zampieri L; Burtovoi A and 5 more (2019) *Timing analysis and pulse profile of the Vela pulsar in the optical band from Iqueye observations*, **MNRAS** 482, Issue 1, p.175-183, DOI: [0.1093/mnras/sty2605](https://doi.org/10.1093/mnras/sty2605)

Mignani RP; Shearer A; de Luca A; Marshall F E; Guillemot L; Smith D A; Rudak B; Zampieri L; Barbieri C; Naletto G; Gouiffes C; Kanbach G (2019) *The First Ultraviolet Detection of the Large Magellanic Cloud Pulsar PSR B0540-69 and Its Multi-wavelength Properties*, **The Astrophysical Journal**, 871, Issue 2, article id. 246, 15 pp., DOI:[10.3847/1538-4357/aafb04](https://doi.org/10.3847/1538-4357/aafb04)

Zampieri L; Burtovoi A; Fiori M and 5 more (2019) *Precise optical timing of PSR J1023+0038, the first millisecond pulsar detected with Aqueye+ in Asiago*, **MNRAS** Volume 485, Issue 1, p.L109-L113, I:[10.1093/mnras/slz043](https://doi.org/10.1093/mnras/slz043)

Burtovoi A., Zampieri L., Fiori M., Naletto G., Spolon A., Barbieri C., Papitto A., Ambrosino A. (2020) *Spin-down rate of the transitional millisecond pulsar PSR J1023+0038 in the optical band with Aqueye+,* **MNRAS** Vol. 498, Issue 1, p. L98

Cassanelli T, Naletto G, Codogno G, Verroi E, Zampieri L (2022) *New technique for determining a pulsar period: Waterfall principal component analysis*, **Astronomy & Astrophysics**, Volume 663, id.A106, 11 pp., doi: [10.1051/0004-6361/202243515](https://doi.org/10.1051/0004-6361/202243515)

- **Lunar Occultations**

Zampieri L; Richichi A; Naletto G; Barbieri C; Burtovoi, A; Fiori, M; Glindemann A; Umbriaco G; Ochner P; Dyachenko V; Barbieri M (2019) *Lunar Occultations with Aqueye+ and Iqueye*, **The Astronomical Journal**, Volume 158, Issue 5, article id. 176, 7 pp., DOI: [10.3847/1538-3881/ab3979](https://doi.org/10.3847/1538-3881/ab3979)

- **Quantum Astronomy, Intensity Interferometry**

Barbieri C; Dravins D; Occhipinti T; Tamburini F; Naletto G; Da Deppo V; Fornasier S; D'Onofrio M; Fosbury R. A. E.; Nilsson R; Uthas H (2007) *Astronomical applications of quantum optics for extremely large telescopes*, **Journal of Modern Optics**, vol. 54, issue 2, pp. 191-197

Barbieri C; Daniel MK; de Wit WJ; Dravins D; Jensen H; Kervella P; Le Bohec S; Malbet F; Nunex P; Ralston JP; Ribak EN (2008) *New Astrophysical Opportunities Exploiting Spatio-Temporal Optical Correlations*, **Astro2010: The Astronomy & Astrophysics Decadal Survey, Science White Papers**, no. 61

Fiori M, Barbieri C, Zampieri L, Naletto G, Burtovoi A (2021) *Measurement of the second-order $g^{(2)}$ correlation function of visible light from Vega in photon counting mode*, **Proceedings of the SPIE, Volume 11835, id. 118350D 10 pp. (2021)**, DOI: [10.1117/12.2593083](https://doi.org/10.1117/12.2593083)

Zampieri L, Naletto Gi, Burtovoi, A, IFiori M, Barbieri, C (2021) *Stellar intensity interferometry of Vega in photon counting mode*, **MNRAS, Volume 506, Issue 2, pp.1585-1594 DOI: 10.1093/mnras/stab1387**

Rodeghiero G; Gini F; Marchili N, Barbieri C et al.(2017) *Probing interferometric parallax with interplanetary spacecraft*, **Adv. Space Res. 60..153R**

Barbieri C, Naletto G, Zampieri L (2023) *Quantum Astronomy at the University and INAF Astronomical Observatory of Padova, Italy*, **Astronomy**, vol. 2, issue 3, pp. 180-192, doi: [10.3390/astronomy2030013](https://doi.org/10.3390/astronomy2030013)

- **Quantum Communications from ground and Space, Entangled Photons**

Ursin R, Tiefenbacher F, Schmitt-Manderbach T, ... , Barbieri C, Weinfurter H, Zeilinger A. (2007). *Free-Space Quantum Key Distribution Over 144 Km*, **Nature Physics, Volume 3, Issue 7, pp. 481-486**

Barbieri C, Occhipinti T, Čadež A (2009) *The Harrison Project: Concluding Report*, **GUHarrison, ESA-EC document**

Ursin R; Jennewein T; ..., Barbieri C, ..., Zeilinger A, (2009) *Space-QUEST: Experiments with quantum entanglement in space*, **Europhysics News, Volume 40, Issue 3, 2009, pp.26-29, doi: <https://doi.org/10.1051/epn/2009503>**

Villoresi P, Jennewein T, ..., Zeilinger A, Barbieri C (2008) *Experimental verification of the feasibility of a quantum channel between space and Earth*", **New J. Phys.**, v10, 033038 (March 2008) **IOP selected paper.**

Perdigues Armengol J P, Furch B, ..., Barbieri C, Weinfurter H, Zeilinger A (2008) *Quantum communications at ESA: Towards a space experiment on the ISS*, **Acta Astronautica 63, pp. 165 – 178**

Books:

- *Lezioni di Astronomia* (Zanichelli), two editions, 1999 and 2001
- *La nascita dell'Astrofisica nel XIX secolo* (CLEUP), 2000
- *Fundamentals of Astronomy* (in English, Taylor and Francis) two editions, 2006 and 2020 together with Ivano Bertini,
- *Astronomia Perché?* Editrice Compositori, 2009
- *A brief Introduction to the Search Extra-terrestrial life*, (CRC Press), 2019, in English
- *L'influenza del Cristianesimo sullo sviluppo dell'Astronomia'*, chapter in the volume "dopo 2000 anni di Cristianesimo" (CEI, Mondadori).
- Chapters in several Italian Encyclopedias (e.g. Treccani, EST Mondadori, etc.),

Editor of Proceedings/Conferences:

- European Satellite Astrometry (ESA 1970), the first European conference dedicated to Hipparcos

- The Three Galileo, the Men, the Spacecraft, the Telescope, proceeding of a conference held in Padova University, with audience in Vatican and address to scientists by Saint Paul John II (1997 Kluwer)
- Earth-Moon Relationships, conference held at the Accademia Galileiana in Padova (2000 Kluwer)
- 2nd ESA/COSPAR GALILEO GNSS, conference held in Padova University (2008 ESA publication)
- 400th Anniversary of the discovery of the Medicean Moons, IAU Symposium 269, held in Padova (2010 Cambridge University Press),
- From Giotto to Rosetta, 30 years of cometary science from ground and space (Accademia Galileiana di Padova)
- High Time Resolution Astrophysics, Marostica 27-28 November 2017 (see: <http://web.pd.astro.it/zampieri/htrameeting/HTRA.html>)
- 800 years of Space at the University of Padova, Sept. 7-9 2022, in the occasion of the 800th anniversary of the foundation of the University
- Quantum Astronomy and Quantum Communications, INO/CNR and QTI, Arcetri, 18-19 Dec. 2023

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)
- 2017: *Magister Giotto* (Venezia, Scuola Grande della Misericordia)
- 2022: *800 years of Space*, Galleria Cavour, Padova, 7-15 Sept. 2022

Speaker in many popular conferences in Italy and abroad.

2017 Prize Lacchini of the Italian Amateur Astronomer association for outreach activity

Memberships

- Italian Astronomical Society SAIt
- International Astronomical Union IAU
- Cofounder of the European Astronomical Society EAS
- Accademia Galileiana Padova
- Istituto Veneto Scienze Lettere e Arti, Venezia

Prizes and Honours:

- NASA Group Award for FOC/HST.

- ESA Certificate of Recognition for Osiris (Rosetta)
- Gold Medal of Italian Ministry for Education
- Commendatore of the Italian Republic
- Sigillum of the City of Padova