

PERSONAL INFORMATION

Dr. Sergio Campana

ORCID: 0000-0001-6278-1576

Date of birth: 11 November 1965

Nationality: Italian and German

Married, three children

Web site: <http://www.brera.inaf.it/~campana/webpage/sergio/Welcome.html>

• EDUCATION

1993 PhD in Astronomy – University of Milano, Department of Physics, Italy,

Advisors: Prof. L. Stella & Prof. G. Chincarini *Problems on accretion onto compact objects*

1989 Master in Physics (summa cum laude)

University of Pavia, Department of Physics, Italy, (Ghislieri college alumnus),

Advisor: Prof. M. Carfora *Topological fluctuations in quantum gravity*

• CURRENT POSITION(S)

2016 – ... Dirigente di Ricerca (Full professor) Osservatorio astronomico di Brera (OAB) – INAF, Italy

• PREVIOUS POSITIONS

2003 – 2016 Associate Astronomer at OAB – INAF, Italy

2000 – 2003 Staff Astronomer at OAB – INAF, Italy

1998 – 2000 Technical staff position on X-ray satellites at OAB – INAF, Italy

Soon after my PhD, I was involved in the European project for building the Joint European Telescope in X-rays (JET-X) instrument on board the Spectrum Röntgen Gamma mission, then giving rise to the *Swift* X-ray Telescope. I spent a lot of time mainly between the Panter facility calibrating the X-ray mirrors of JET-X (MPE, Germany), the University of Leicester, and Penn State University, following the *Swift* XRT, from the single mirrors' calibration to the lead of the XRT in-flight calibration effort.

• FELLOWSHIPS AND AWARDS

2018 – 2022 Ministero degli affari Esteri fellowship for the US-Italian cooperation on GW sources

2009 Maria & Eric Muhlmann Award, Astronomical Society of the Pacific, *Swift* Team

2007 Bruno Rossi Prize (N. Gehrels & the *Swift* team)

2005 NASA Exceptional Scientific Achievement to the *Swift* Science team

1996 – 1998 Post-doc fellowship on the calibration and ground segment of the JET-X instrument at OAB, Italy

1994 – 1996 High Energy Astrophysics fellowship (Agenzia Spaziale Italiana) at OAB, Italy

1993 – 1994 Short visits: ICRA (1month, Roma, Italy), SISSA (3months, Trieste, Italy), Princeton University (1month, Princeton, USA)

• SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

I have supervised and trained many students including 13 laurea theses, 16 master theses, and 8 PhD theses (among others, P. D'Avanzo – Brera; F. Coti Zelati – CSIC; M.C. Baglio – Brera; A. Miraval Zanon – ASI; R. Arcodia – MIT; I. Andreoni – GSFC; F. Gastaldello – IASF Mi). Notably, over 60% of my PhD students have pursued careers in astrophysics. It is important to note that INAF is a research institute and does not have internal students. Additionally, a local University provided funds for each PhD student who worked with me. Throughout the *Swift* lifetime, I mentored over 15 post-docs, some funded through my grants: D. Lazzati, A. Moretti, P. Romano, M.G. Bernardini, and C.C. Thöne. among others.

- **TEACHING ACTIVITIES (last 5 years)**

I usually teach data analysis to all my students (thesis and PhD), as well as the science topics related to their theses. Note that INAF is a research institute and I do not have formal teaching duties.

2014– 2017 Ph.D. Physics and Astrophysics of University of Milano-Bicocca – Board member

- **ORGANISATION OF SCIENTIFIC MEETINGS (last 5 years)**

2025 March SOC member of the Celebrating 20 Years of Swift Discoveries meeting (Firenze, Italy)

2024 June Chair of the SOXS Consortium meeting (Napoli, Italy)

2024 March Chair of the Fast-Evolving Extragalactic Transient meeting (Bormio, Italy)

2023 June SOC Member of the Vasto accretion meeting (Vasto, Italy)

2023 Feb. Chair of the L* meeting in honour of Luigi Stella's retirement (Bormio, Italy)

2021 Apr. SOC Member of the Athena-Rubin synergy conference (online)

2020 Nov. Chair of the first SOXS Consortium meeting (online)

2018 Dec. Chair of the first Italian SOXS meeting (Pavia, Italy)

2019-22-24 SOC member/Chair of the National congress on compact objects (CNOOC, creator in 1999, 2 yr cadence)

- **INSTITUTIONAL RESPONSIBILITIES (last 5 years)**

2022 Member of a PhD Defence Committee in Astrophysics - Universities of Durham

2022 Member of a PhD Defence Committee in Astrophysics - Universities of Milano-Bicocca

2021 Member of a PhD Defence Committee in Astrophysics - Universities of Palermo & Toulouse

2019 Member of a PhD Defence Committee in Astrophysics - University of Amsterdam

2018 – 2024 President of (>10) hiring Committees for temporary post-doc positions at OAB

- **REVIEWING ACTIVITIES (last 5 years)**

2015 – ... Associate Editor for Astronomy & Astrophysics

2019-20-21 Panel member of China TAP program

2019–2021 Panel member of the Athena-LSST synergy group

2017-19-20 Evaluator for ERC Starting Grant applications

2017 & 2019 Evaluator for the Poland National Science Centre

2016 Evaluator for the Italian National Research Quality Evaluation ANVUR/VQR

I act as a scientific editor for Astronomy & Astrophysics, managing 250-300 A&A main journal papers and letters per year.

Referee for Nature, Science, The Astrophysical Journal (& Letters), Astronomy & Astrophysics (& Letters), Monthly Notices of the Royal Astronomical Society (& Letters), Optical Engineering, X-ray Optics and Instrumentations, Advances in Space Research, Nuovo Cimento, Journal of High-Energy Astrophysics, Frontiers in Astrophysics.

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES (last 5 years)**

2017 – 2018 Member of the ePESSTO Science Board

2015 – ... IAU Member (Division D)

2002 – ... *Swift* associated scientist

Member of several collaborations: GRAWITA (GW-Italy), ENGRAVE (GW-Europe), CIBO (GRB-Italy), Stargate (GRB-Europe); ePESSTO+ (Transients, Europe), Rubin/LSST (Transient and Variable Sources, USA).

- **INSTRUMENTAL COLLABORATIONS**

2024 – ... PI of the Italian participation in the *Swift* mission

2022 PI of the High-redshift Universe GRB Observatory (HUGO) presented in response of the HORIZON-INFRA-2022-DEV-01 call

2014 – ... PI of the Son Of X-Shooter (SOXS) spectrograph presented in response to the ESO call for

ideas at NTT. I am leading the Italian team made of >20 astronomers and coordinating the international team made of >40 astronomers

- 2004 – ... Responsible for the calibration of the *Swift* X-ray Telescope. At the beginning of the mission, the calibration team I coordinated was made by >15 scientists, now it is reduced to a few
- 2013 PI of the Joint UV Survey Telescope (JUST) presented in response to the ESA Small Mission
- 2013 PI of the mirror module of the XIAO telescope onboard ECLAIR
- Participation as co-I to several high-energy mission proposals: JET-X, Panoram-X, EXTRA, HEXIT, Symbol-X, Duet, ESTREMO, EDGE, Origin, Xenia, WFXT, EXIST, NHXM, Athena, Blackcat, Janus, MIRAX, LOFT, Theseus, XTiDE, XIPE, eXTP.

• **OBSERVING EXPERIENCE (PI approved proposals)**

- X-ray: *ROSAT*, *BeppoSAX*, *ASCA*, *Chandra*, *XMM-Newton*, *RossixTE*, *INTEGRAL*, *Swift*, *NuSTAR*, *NICER*
- Optical/nIR: ESO-NTT/3.6, ESO-VLT, TNG, REM, HST
- Radio: Arecibo, VLA
- TeV: MAGIC

• **BOOKS**

- 2019 - Book Chapter *Accreting pulsars: mixing-up accretion phases in transitional systems*, S. Campana & T. Di Salvo, in *The physics and astrophysics of neutron stars*, eds. L. Rezzolla, et al., Springer.

• **BIBLIOMETRICS**

- Refereed papers (according to ADS): 446, citations: 35289, *h*-index: 84; first author papers: 65; first author *h*-index: 31.
- All publications (including GCN and ATEL, according to ADS): 967, citations: 38478, *h*-index: 86.
- Most cited paper: Gehrels et al. 2004, ApJ (3498 cit.); most cited first author paper: Campana et al. (2006), Nat (728 cit.).
- 19 papers on Nature (2 first author), 1 N&V on Nature, 5 Nature Astronomy (1 first author), and 5 on Science.
- I worked out a dedicated site for bibliometric studies: [Astrometrics](#).

• **INVITED TALKS AND SEMINARS (last 5 years)**

- “Prospects for multi-messenger astronomy with SOXS” in SOXS Consortium meeting (Napoli, June 2024)
- “Shock Breakout and relativistic supernovae” discussion leader in *Fast-Evolving Extragalactic Transient* meeting (Bormio, March 2024)
- “SOXS-N & HUGO: new instruments for the search of GW” in *Einstein Telescope @ INAF* (Roma, December 2023)
- “HUGO: the high-redshift Universe GRB observatory” in *Giornate INAF 2023* (Napoli, May 2023)
- “Propeller: from V0332 to IGR” in *L* meeting* (Bormio, February 2023)
- “Son Of X-Shooter: the transient hunter” in *HACK100* (Trieste, June 2022)
- “SOXS on the ESO-NTT 2023-2028” in *ATLAS Science meeting* (online, June 2022)
- “SOXS for the NTT” in *SVOM workshop at OHP* (online, November 2022)
- “The future of rapid spectroscopy, from GW sources and GRBs to X-ray binaries” in *ULTRASAT science workshop* (online, October 2021)
- “SOXS update” in *IVePESSTO meeting* (online, September 2020)
- “FAST monitoring of the optical sky” in *VST and beyond* (online, June 2020)
- “Next-generation optical facilities in the multi-messenger era” in *The era of collaborative multi-wavelength and multi-messenger astronomy: science and technology* (Firenze, October 2019)
- “SOXS and the future landscape of instrumentation at ESO for transients” in *The extragalactic explosive Universe: the new era of transient surveys and data-driven discovery* (Garching, September 2019)
- “Observations of propeller accretion” in *From winds to jets* (Amsterdam, July 2019)

• **INTERNATIONAL PRESS RELEASES (direct involvement only)**

ESO press release “ESO telescopes help unravel pulsar puzzle” (August 2023)
NASA press release “NASA Missions Study What May Be a 1-In-10,000-Year GRB” (March 2023)
HEAD 20 press conference (Livestream-video, March 2023)
PSU press release “Brightest GRB ever recorded may be 1-in-10,000-year event” (March 2023)
ESO announcement “ESO’s LSO to gain cutting-edge SOXS instrument” (Oct. 10, 2018)
ESA press release “Cosmic blast wave takes rest at last” (May 31, 2018)
NASA press release “Astronomers Uncover a Transformer Pulsar” (Sep. 25, 2013)
PSU press release “Transformer Star Discovered with X-rays and radio waves” (Sep. 25, 2013)
Scientific American “The strange case of the Christmas burst” (Dec. 24, 2011)
France Soir “Duex thèses pour expliquer le sursaut gamma de Noël” (Dec. 3, 2011)
El Mundo “Un raro estallido celeste admite dos explicaciones distintas sobre su origen” (Dec. 1, 2011)
ScienceNews “Christmas gamma-ray burst still puzzles” (Nov. 30, 2011)
Space.com “Competing explanations proposed for strange Christmas space explosion” (Nov. 30, 2011)
CNN “Christmas gamma-ray burst debated” (Nov. 30, 2011)
PSU press release “Peculiar cosmic explosion on Christmas 2010 continues to intrigue astronomers” (Nov. 30, 2011)
NASA press release “NASA’s Swift finds a gamma-ray burst with a dual personality” (Nov. 30, 2011)
PSU press release “Asteroid video captured by Nasa’s Swift satellite” (Nov. 11, 2011)
NASA press release “NASA’s Swift observatory catches asteroid flyby” (Nov. 10, 2011)
Image on the first page of the Corriere delle Sera (Aug. 31, 2006)
Science, “Flashing out a Star’s Demise” (Aug. 30, 2006)
ESO press release “Witnessing the flash from a black hole’s cannibal act” (Dec. 14, 2005)

Leadership profile (last 10 yr)

I have vast experience in conceiving, running and leading research projects involving tens of scientists and in creating work conditions that foster a highly collaborative environment. In particular:

- I am co-leading (and lead from 2024) the Italian scientific participation to the Swift space mission. I am leading the Swift X-Ray Telescope calibration effort.
- I conceived the Son Of X-Shooter (SOXS) spectrograph; I wrote and led the scientific and technological proposal for ESO (signed by 66 international scientists). I am now leading the manufacturing of SOXS, and I will lead the SOXS operations in La Silla and the scientific exploitation of the SOXS data.
- I conceived the Joint Ultraviolet Space Telescope (JUST) small mission; I wrote and led the scientific and technological proposal for ESA (signed by 64 international scientists).
- I conceived the High-redshift Universe GRB Observatory (HUGO) telescope; I wrote and led the scientific and technological proposal for the HORIZON2022 call (signed by 5 European institutes).
- I co-lead (and lead from 2024) the high-energy transient group at Brera Observatory, working on GRBs, GWs, SBOs, SNe, X-ray binaries, tidal disruption events, magnetars, etc.
- I act as a scientific editor for Astronomy & Astrophysics. This is not a direct leadership role, instead it is a very sensitive and recognised position within the scientific community.