

Curriculum Vitae - Piergiorgio Casella
RESEARCHER

National Institute for Astrophysics (INAF),
Rome Astronomical Observatory,
Via Frascati 33, I-00078
Monteporzio Catone, Italy

Tel: +39 0694286 476
Fax: +39 069447243
Email: piergio.casella@inaf.it
Web: www.oa-roma.inaf.it/heag/pg_photo/
personal e-mail: pg.casella@gmail.com

ORCID: 0000-0002-0752-3301 <https://orcid.org/0000-0002-0752-3301/>

Languages:

- Italian (mother tongue), English (professional: C1/C2), French (scholastic: A2/B1), Dutch (basics)

Place & Date of Birth: Rome, 13th October 1973
Nationality: Italian

EDUCATION

- 3 Mar 2005 **Ph.D.** in Physics at the University of Rome “Roma Tre”
Supervisors: Prof. L. Stella, Prof. G. Matt
Title: “*Fast aperiodic variability of stellar-mass black holes in Xray binaries*”
- 11 May 2001 **Laurea** in Physics (marks: 110/110) at the University of Rome “Tor Vergata”
Supervisors: Prof. A. Cavaliere, E. Costa
Title: “*Study of the spectral variability of microquasar GRS 1915+105 with the satellite BeppoSAX*”

PROFESSIONAL EXPERIENCES

- 1 Sep 2011 - present **Researcher** at INAF - Rome Astronomical Observatory (IT)
- Jun 2009 - Aug 2011 **FP7 Marie Curie Fellow** at the University of Southampton (UK)
- Jan 2009 - Feb 2009 **Visiting Scientist** at ESO, Santiago (Chile)
- Jan 2006 - May 2009 Post-doc at the Astronomical Institute, UvA, Amsterdam (NL)
- Apr 2006 - Mar 2007 **NWO Rubicon Fellow** at the API/UvA, Amsterdam (NL)
- Jan 2005 - Dec 2005 Post-doc at the OAB/INAF, Milan (IT)
- May 2004 - Dec 2004 Research Fellow at the OAB/INAF, Milan (IT)
- Jan 2002 - Dec 2004 PhD Student at the University of Rome “Roma Tre” and at OAR
- May 2002 - Apr 2003 Student fellowship CNR (at OAR)
- Nov 2001 - Apr 2002 Visiting Student at the Harvard-Smithsonian CfA, Cambridge (US)

RESEARCH PROJECT COORDINATION / RESPONSIBILITY

Projects with direct financial responsibility

- 2012-2016 RESPONSIBLE FP7-CIG “MultiFast” project FP7 “Career Integration Grant” (100000,00 €)
- 2018 NATIONAL COORDINATOR project ASI-NuSTAR (NARO18) “A multi-wavelength view on the disk-jet connection: the role of NuSTAR” (8500,00 €)
- 2019 LOCAL COORDINATOR (OAR) - project INAF Mainstream “High-Energy observations of Stellar-mass Compact Objects: from CVs to Ultraluminous X-Ray Sources” (4700,00 € / 39500,00€ PI Naz. Belloni)
- 2017 LOCAL COORDINATOR (OAR) - project INAF-ASI “High-Energy observations of Stellar-mass Compact Objects: from CVs to Ultraluminous X-Ray Sources” (43000,00 € / 101000,00€ PI Nazionale Belloni)
- 2015 LOCAL COORDINATOR (OAR) - project ASI-NuSTAR (NARO15) “Accretion onto stellar and intermediate-mass compact objects with NuSTAR” (5600,00 € / 28000,00€ PI Nazionale Belloni)

Other Projects

- 2022 - presente **Funder and coordinator** of the team “**ITALIAN Black Holes**”. Participants: Belloni T. (INAF-OAB), Motta S. (INAF-OAB), Del Santo M. (INAF-IASFPa), Capitanio F. (INAF-IAPS), De Marco B. (Barcellona), Vincentelli F. (Tenerife), Carotenuto F. (Oxford), Baglio M.C. (NYU Abu Dhabi), Marino A. (Barcellona), Mastroserio G. (INAF-OAC), Illiano G. (INAF-OAR), Lai E. (Warsaw), Miceli C. (INAF-IASFPa), Mariani I. (INAF-OAR)
- 2022 - presente **Scientific responsible** for **aperiodic variability Science** (optical and near-infrared) for the PNRR-funded e-SiFAP (instrument PI F. Ambrosino).
- 2019 - presente **Funder and coordinator** of the optical counterpart search project for Fast Radio Bursts with ultra-fast optical photometer SiFAP.
- 2009 - presente **Funder and coordinator** of the project “Study of multi-wavelength variability from JETS in X-ray binaries”

WORK PACKAGE RESPONSIBILITIES

- 2020 - presente **Leader WP #3** “Transient X-ray Binaries, Magnetars, Ultra-luminous X-ray sources” for SOXS@NTT
- 2019 **Responsible** for “X-ray Binaries” science case for the White Paper “The power and promise of X-ray interferometry”, call ESA “Voyage 2050”
- Member** of Science Working Groups for Athena, SKA, LOFT, eXTP, THESEUS

RESEARCH TEAM PARTICIPATION

as LEADER / COORDINATOR

- 2018 - 2022 **ISSI Team co-Leader** (with S. Motta) of ISSI International Team “#440 - Looking at the disc-jet coupling from different angles: inclination dependence of black-hole accretion observables”.
- 2015 **LC Workshop co-Leader** (with M. Middleton e P. Gandhi) Lorentz Center Workshop “Paving the way to simultaneous multi-wavelength astronomy”.
- 2015 - present **co-Founder e co-Coordinator** (with M. Middleton e P. Gandhi) of the collaborative network SmartNet (<http://isdc.unige.ch/smartnet/>)
- 2012 **ISSI Workshop co-Leader** (with T. Belloni, M. Gilfanov, P. Jonker, M. Falanga, A. King) of ISSI Workshop “The Physics of Accretion onto Black Holes”.

As team member

SKA “Transients” Working Group
 Athena “2.5 - Physics of Accretion” Science Working Group
 Athena “3.5 - Multiwavelength Synergies” Science Working Group
 LOFT “Observatory Science” Science Working Team
 LOFT “Strong Gravity” Science Working Team
 XIPE “Observatory Science” Science Working Team
 eXTP Science Team
 STROBE-X “Strong Gravity” Science Working Team
 THESEUS “Observatory Science” Science Working Team
 GRAWITA (GRAvitational Wave Inaf TeAm) (till 2022)
 ENGRAVE (Electromagnetic counterparts of gravitational wave sources at the Very Large Telescope)
 International Working Team ISSI “#162-Strong gravitational field and ultra-dense matter in neutron stars” coordinato by T. Belloni
 International Lorentz Center Team Workshop “The X-ray Spectral-Timing Revolution” coordinated by P. Uttley
 Research team PRIN SKA/CTA “Transienti” PI M. Giroletti

AWARDS

- 2011 Career Integration Grant (EU FP7): 100000,00€
- 2009 **MSCA Seal of Excellence** (https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/seal-excellence_en)
- 2009 ESO Visiting Scientist support & travel grants
- 2006 - 2008 LKBF (NL) several travel funds
- 2006 Rubicon Fellowship (NL NWO)
- 2006 Young Researcher COSPAR Grant
- 2002 Student Fellowship CNR

EDITORIAL BOARD MEMBERSHIP

- "Universe" (ISSN 2218-1997, impact factor 2.813)

RESEARCH ACTIVITY ABROAD

July 2023	Invitation to visit (one month) the Center for Astrophysics in Boston (USA)
July 2022	Visiting (two weeks) F. Vincentelli at the IAC in Tenerife (Spain)
July 2019	Visiting (one month) the University of Southampton (UK)
July 2018	Visiting (one month) the University of Southampton (UK)
April 2018	Visiting (two weeks) A. Veledina and J. Poutanen at the University of Turku (Finland)
July 2017	Visiting (one month) the University of Southampton (UK)
February 2017	Visiting (two weeks) D. Russell at the NYU in Abu Dhabi (UAE)
July 2016	Visiting (one month) the University of Southampton (UK)
May 2015	Visiting (one week) A. Pe'er at the University of Cork (Ireland)
Jul 2009 - Aug 2011	Postdoc (2yr and 3m) at the University of Southampton (UK)
Jan - Feb 2009	Visiting scientist (1 month) at ESO Santiago (Chile)
Jan 2006 - Jun 2009	Postdoc (3.5 years) at the University of Amsterdam (NL)

BOOK EDITOR

- “*The Physics of Accretion onto Black Holes*” Series: Space Sciences Series of ISSI, ISBN: 978-1-4939-2226-0. Springer New York (New York, NY), Edited by Maurizio Falanga, T. Belloni, P. Casella, M. Gilfanov, P. Jonker and A. King, vol. 49:
<https://link.springer.com/book/10.1007/978-1-4939-2227-7>
- “*Physics of Relativistic Objects in Compact Binaries: From Birth to Coalescence*”, Edited by M. Colpi, **P. Casella**, V. Gorini, U. Moschella and A. Possenti. Astrophysics and Space Science Library, Vol. 359. Berlin: Springer, 2009:
<https://link.springer.com/book/10.1007/978-1-4020-9264-0>

REVIEW e WHITE PAPERS

With a leading role:

- *The physics of accretion-ejection with LOFT*
(White Paper in Support of the Mission Concept LOFT)
Casella, P. et al. 2015, arXiv e-prints, arXiv:1501.02766.
- *Paving the way to simultaneous multi-wavelength astronomy*
(Invited Review)
Middleton M. J., Casella P., Gandhi P. et al. New Astronomy Review, volume 79, pages 26-48 (2017)

- *Multi-Wavelength Variability. Accretion and Ejection at the Fastest Timescales*
(Invited Review)
Uttley P. & Casella P., Space Science Reviews, volume 183, pages 453–476 (2014)

With a key role within a small community:

- *The high energy Universe at ultra-high resolution: the power and promise of X-ray interferometry*
(White Paper submitted in response to ESA's Voyage 2050 call)
Uttley, P., Hartog, R. den., Bambi, C., Barret, D., Bianchi, S., Bursa, M., Cappi, M., Casella, P., Cash, W., Costantini, E., Dauser, T., Trigo, M. D., Gendreau, K., Grinberg, V., Herder, J.-W. den., Ingram, A., Kara, E., Markoff, S., Mingo, B., Panessa, F., Poppenhäger, K., RóŻańska, A., Svoboda, J., Wijers, R., Willingale, R., Wilms, J., & Wise, M., 2021, Experimental Astronomy, 51, 1081.
- *Astro2020 Science White Paper: Compact Stellar Jets*
(White paper submitted to Astro2020 decadal survey)
Maccarone, T. J., Gallo, E., Heinz, S., Miller-Jones, J. C. A., Casella, P., Eikenberry, S., Gandhi, P., Plotkin, R. M., Sivakoff, G. R., Steiner, J. F., Tetarenko, A. J., & Tomsick, J. A., 2019, arXiv e-prints, arXiv:1904.11845.

As a team member in a larger community:

- *Observatory science with eXTP*
in't Zand, J. J. M. et al. 2019, Science China Physics, Mechanics, and Astronomy, 62, 29506.
- *Accretion in strong field gravity with eXTP*
De Rosa, A. et al. 2019, Science China Physics, Mechanics, and Astronomy, 62, 29504.
- *ESO-Athena Synergy White Paper*
Padovani, P. et al. 2017, arXiv e-prints, arXiv:1705.06064.

INSTRUMENT CONTRIBUTION

- co-Author of an **APPROVED Internal ESO proposal** to the Paranal director, for the implementation of a High Time Resolution Observing Mode on the VLT instrument HAWK-I (PI: V. Ivanov)
- co-Author of a **Science case submitted to ESO**, in response to the call for the European ELT Design Reference Science Plan, “Probing jet formation near the event horizons of black holes” **using fast photometers** (PI: D. Russell)
- co-Author of a **JWST Proposal**, in response to the Early Release Science call, to calibrate and support JWST timing capabilities: “JWST Extreme Time-domain Science”. (PI: Gandhi)
- co-Author of several **proposals for Space Missions** to ESA(LOFT, eXTP, Athena, THESEUS) and NASA (STROBE-X)

SOC & LOC OF CONFERENCES AND WORKSHOPS

- SOC Member of the IX Microquasar Workshop, Cagliari, 2021
- LOC Member of the X-ray Universe Symposium, Rome, 2017
- SOC Member of the 9th Italian National Congress on Compact Objects, OAR, 2015

- LOC CHAIR of the 9th Italian National Congress on Compact Objects, OAR, 2015
- SOC Member and Convenor of the Lorentz Center Workshop “Paving the Way to Simultaneous Multi-Wavelength Astronomy”, to be held in Leiden (NL), July 2015. The workshop was by-invitation only, and about 30 of the most world-wide recognized experts in the field have registered, including the directors of the major ground- and space-born observatories. The workshop is aimed to “discuss and identify the community's future requirements based on recent discoveries and progress in multi-wavelength Astronomy, and how these can best be served by a concerted effort to unify strategies or complemented by a new, next-generation Multi-Wavelength satellite”. The workshop will yield to the publication of a White Paper on these issues.
- SOC Member of the ESA Workshop “Spectral/timing properties of accreting objects: from X-ray binaries to AGN”, Madrid, 2013
- SOC Member of the EWASS Symposium “The physics of accretion on compact objects” at the EWASS 2013, held in Turku, July 2013
- Convenor of the ISSI Workshop “The Physics of Accretion onto Black Holes”, held at ISSI in Berne, October 2012
- SOC and LOC Member of the Workshop “A Decade of Accreting Millisecond Pulsars”, Amsterdam, 2008
- LOC Member of the VI Microquasar Workshop, Como, 2006
- LOC Member of the 3rd Italian National Congress on Compact Objects, M. P. Catone, 2003

REFEREE

for Grants and Postdoctoral Fellowships

- European Reviewer (multiple times) for Postdoctoral Fellowships H2020 “Marie Skłodowska-Curie Actions”
- European Reviewer (multiple times) for EU COST Actions
- Reviewer (multiple times) for the Paris Région Fellowship Programme

External reviewer for Career Evaluation

- Reviewer (multiple times) for the South Africa’s National Research Foundation (NRF)

for peer-reviewed Journals

- *The Astrophysical Journal Letters*
- *The Astrophysical Journal*
- *Monthly Notices of the Royal Astronomical Society*
- *Monthly Notices of the Royal Astronomical Society Letters*
- *Astronomy & Astrophysics*

Referee for Observing Proposals

- PATT External Reviewer for WHT
- NASA Peer Review panelist for SWIFT
- NASA Peer Review panelist for Chandra
- ESO peer-reviewer for VLT
- peer-reviewer for TNG and REM

Referee for Master and PhD Thesis

- External Reviewer PhD Thesis of Fabiana Scarano (2017, Università di Cagliari)

COMMITTEES

- PhD Committee in Paris. F. Carotenuto (2022)
- Research hiring in Rome A. Papitto (2015)
- PostDoc hiring in Rome. M. Kalamkar (2012)
- PhD Committee in Amsterdam. P. Soleri (2010)

OTHER COMMUNITY SERVICES

- Organizer of the Astronomy Colloquium program at the University of Southampton (2009-2011)
- Co-organizer (with P. Ventura e N. Menci) Colloquium program at INAF - Rome Astronomical Observatory (2012-present)
- Session Chair at a number of Workshops/Congresses/Conferences

CONFERENCE PARTICIPATION

- **Invited Review** talk at the 10th Microquasar Workshop, to be held in Crete, May 2023
- **Invited Review** talk at the LStar Conference, Bormio, February 2023
- Talk at the XII CNOC, Cefalù, September 2022
- Talk at the SOXS Consortium Science Meeting (online), November 2020
- **Invited talk** at the ESO Users' Committee meeting (online), April 2020
- Talk at the XI CNOC, Arcetri, November 2019
- **Invited Review** talk at "The future of x-ray timing" Conference, Amsterdam, October 2019
- **Invited talk** at the ALMA Workshop, Bologna, Febbraio 2019
- **Invited talk** at the SOXS Scientific Conference, Pavia, December 2018
- **Invited talk** at the SKA/CTA Meeting, Bologna, April 2018
- **Invited Review** talk at the "High Time Resolution Astrophysics" Meeting, Marostica, Nov. 2017
- Talk at the INTEGRAL meeting, Venezia, October 2017
- Talk at the X CNOC, Padova (Italy), December 2017
- **Invited Review** talk at the ESO-Athena Synergy Team Workshop, Garching, September 2016
- Talk at the MA4 Workshop, Bologna, June 2016
- **Invited Review** talk at the IX CNOC, Monteporzio Catone, September 2015
- **Invited Review** talk at the LOFT Consortium Meeting in Rome, November 2014
- **Invited talk** at the "Spectral/timing properties of accreting objects: from X-ray binaries to AGN", ESA Madrid (Spain), April 2013
- Talk at the VII CNOC, Bormio, December 2011
- Talk at the High Time Resolution Astrophysics (HTRA) IV - The Era of Extremely Large Telescopes workshop, Crete, May 2011
- **Invited talk** at the "Fast X-ray timing and spectroscopy at extreme count rates", Champéry (Switzerland), February 2011
- **Invited Lecturer** at the Variability Workshop, Southampton (UK), May 2010
- **Invited Highlighted talk** at the VI CNOC, Cagliari (Italy), September 2009
- **Solicited talk** at the COSPAR meeting, Montreal (Canada), July 2008
- Talk (2nd) at the COSPAR meeting, Montreal (Canada), July 2008
- **Invited talk** at the Microquasar Workshop, Agios Nikolaos (Crete), June 2007
- **Solicited talk** at the COSPAR meeting, Beijing (China), July 2006

SEMINARS AND COLLOQUIA

- Invited Colloquium at the University of Turku (Finland, 2019)
- Invited Seminar at the New York University, Abu Dhabi (UAE, 2017)
- Invited Seminar on "Fast-variability properties of jets in BHs" at the Cork University College in Cork (Ireland, May 2015)
- Invited Colloquium at the INAF-OAR in Monteporzio Catone (IT), 2012

- Invited Colloquium at the University of Groningen (NL), March 2011
- Invited Colloquium at the University of Southampton (UK), November 2009
- Invited Lecture “Periodicità nel caos attorno ai Buchi Neri” at the University of Cagliari (Italy), June 2005
- Invited Colloquium at SRON, Utrecht (The Netherlands), August 2005
- Invited Lecture “QPO a bassa frequenza in Binarie X: fisica fondamentale in azione” at the University of Milano Bicocca (Italy), December 2005

SUPERVISING AND TUTORING EXPERTISE

May-Jul 2021 **Supervisor** and fund PI for the student fellowship A. Ulgiati
2014-2016 **Supervisor** and fund PI for **postdoc** Ma. Kalamkar
May-Jul 2019 **Co-supervisor** and fund PI for the student fellowship R. La Placa

UNIVERSITY TEACHING

2022 Università di Roma "La Sapienza": Lezioni monografiche corso di Laurea Magistrale in Astronomia e Astrofisica (**4hr** didattica frontale)
2021 Università di Roma "La Sapienza": Docente/Tutor **Percorso di Eccellenza (32hr** didattica frontale)
2021 Università di Roma "La Sapienza": Lezioni monografiche corso di Laurea Magistrale in Astronomia e Astrofisica (**4hr** didattica frontale)
2021 Università di Roma "Tor Vergata": Lezioni monografiche corso di Laurea Magistrale in Fisica (**4hr** didattica frontale)
2020 Università di Roma "La Sapienza": Lezioni monografiche corso di Laurea Magistrale in Astronomia e Astrofisica (**4hr** didattica frontale)
2019 Università di Roma "Tor Vergata": Lezioni monografiche corso di Laurea Magistrale in Fisica (**4hr** didattica frontale)
2019 Università di Roma "La Sapienza": Lezioni monografiche corso di Laurea Magistrale in Astronomia e Astrofisica (**4hr** didattica frontale)
2018 Università di Roma "Tor Vergata": Lezioni monografiche corso di Laurea Magistrale in Fisica (**4hr** didattica frontale)
2018 Università di Roma "La Sapienza": Lezioni monografiche corso di Laurea Magistrale in Astronomia e Astrofisica (**4hr** didattica frontale)
2015 Università di Roma "Roma Tre": Lezioni monografiche corso di Laurea Magistrale in Fisica (**2hr** didattica frontale)
2013 Università di Roma "Roma Tre": Lezioni monografiche corso di Laurea Magistrale in Fisica (**2hr** didattica frontale)
2012 Università di Roma "Roma Tre": Lezioni monografiche corso di Laurea Magistrale in Fisica (**2hr** didattica frontale)

MASTER AND PHD THESIS SUPERVISION

Sep 2022 - present Master Thesis in Astronomia e Astrofisica, Università di Roma "La Sapienza", Isabella Mariani
Giu 2022 - present Master Thesis in Astronomia e Astrofisica, Università di Roma "La Sapienza", Carlo Campa
May 2020 - Jan 2021 Master Thesis in Astronomia e Astrofisica, Università di Roma "La Sapienza", Alberto Ulgiati
Nov 2015 - Oct 2018 PhD Thesis in Fisica e Astrofisica, Università dell'Insubria, Federico Vincentelli
Nov 2014 - Oct 2015 Master Thesis in Astronomia e Astrofisica, Università di Roma "La Sapienza", Federico Vincentelli

Jul 2013 - May 2014 Master Thesis in Scienze dell'Universo, Università di Roma "Tor Vergata", Piero Vaccari

OTHER PROJECTS SUPERVISION

- 2012 OAR: Tutoring of an undergraduate student (P. Vaccari) of the University of Rome "Tor Vergata", for a Summer Project. Project topic: "Statistical techniques: outburst properties of black-hole transients".
- 2012 OAR: Tutoring of an undergraduate student (M. Joliot) of the University of Paris 7, for a Summer Project. Project topic: "Timing techniques: quasi-periodic oscillations in the X-ray light curve of GRS 1915+105".
- 2010 University of Southampton: co-tutoring (with Dr. T. J. Maccarone) of an undergraduate student (E. K. Panagoulie) of the University of Southampton for a 3rd year Summer Project. Project topic: "Timing techniques: characteristic frequencies in the X-ray light curves of X-ray binaries.
- 2008 University of Amsterdam: co-tutoring (with Prof. M. van der Klis) of three undergraduate students (G. ten Broeke, B. van Dam, J. Paijmans) of the University of Amsterdam for a bachelor project. Project topic: "Accretion theory: characteristic timescales of an accretion disc".
- 2017 OAR. **Tutor on "X-ray timing analysis"** (within the EU-funded project AHEAD) for the visiting scientist: B. De Marco
- 2016 OAR. **Tutor on "X-ray timing analysis"** (within the EU-funded project AHEAD) for the visiting scientist: Manuel Antonio Castro Avila
- 2012 Inter-University Centre for Astronomy and Astrophysics (Pune, India). **Lecturer and project supervisor** at the "Advanced Workshop on X-ray Timing workshop", aimed at training the Indian community on the use of the upcoming ASTROSAT timing satellite.

OBSERVING EXPERIENCE

Approved observing proposals as **PRINCIPAL** Investigator

XMM (X-rays) (DDT)	Hunting for the multi-wavelength counterparts of an FRB
NICER (X-rays) (DDT)	Hunting for the multi-wavelength counterparts of an FRB
XMM (X-rays) (DDT)	"Multiwavelength fast timing of black hole X-ray binary Cyg X-1"
SPITZER (Mid-infrared)	"Rapid variability of jets in X-ray binaries: a new tool"
WSRT (radio)	"Radio timing analysis of black hole X-ray binary Cyg X-1"
RXTE (X-rays) (included in Core Program)	"Coordinated fast X-ray, optical and infrared variability of low-mass X-ray binaries: ToO observations of black-hole transients during spectral transitions "
RXTE (X-rays)	"Coordinated fast multiwavelength variability of neutron-star Low-Mass X-ray Binaries"
SWIFT (X-rays)	" State transitions of black-hole transients during outburst"
VLT/ISAAC (infrared) (DDT)	"Solving the puzzle of the jet contribution to the infrared/optical emission of Galactic black holes ."
VLT/HAWK-I (infrared) (approved multiple times)	"Fast infrared variability from a black hole: measuring the speed, size and geometry of a relativistic jet "
VLT/HAWK-I (infrared)	Black Hole Jet Launching Physics (in support of JWST proposal)
VLT/ISAAC (infrared)	"Infrared polarization and rapid time variability in transient X-ray binary systems harboring black-hole candidates "

VLT/ISAAC (infrared)	“Coordinated fast X-ray and infrared variability of low-mass X-ray binaries: testing the jet power of neutron stars ”
VLT/ISAAC (infrared) ULTRACAM (optical)	“Flaring and Flickering in low accretion rate X-ray binaries ”
TNG/SiFAP2 (optical)	“Characterising the statistical and morphological properties of the mysterious population of fast optical bursts ”
TNG/SiFAP2 (optical)	“Hunting for optical flashes from FRB-like magnetars ”
TNG/SiFAP2 (optical)	Using TNG to validate JWST's in-orbit clock accuracy.
REM (infrared) (approved multiple times)	“A multiwavelength view of the evolving jet in black hole transients”
ALMA (sub-mm)	Constraining jet physics with multi-lambda variability studies of GRS 1915+105
VLA (radio)	Constraining jet physics with multi-lambda variability studies of GRS 1915+105

Hundreds of approved observing proposals as co-Investigator, including:

- JWST Proposal “Black hole jet launching physics with MIRI”
- Participation in several multi-wavelength (X/EUV/Optical/Infrared/Radio/Gamma) observational campaigns of X-ray binaries with ground- and space-based telescopes
- Multiple observing proposals of X-ray binaries with **radio telescopes** including VLA, GBT, ALMA
- Multiple observing proposals of X-ray binaries with **optical** telescopes including WHT, Gemini
- Multiple observing proposals of X-ray binaries with **X-ray** satellites including SAX, RXTE, Integral, Chandra, XMM, NuSTAR, Swift and NICER
- Multiple observing proposals of X-ray binaries with VLT (IR fast photometry and polarization)
- Multiple observing proposals of FRBs with the radio telescopes SRT, GBT
- Multiple DDT proposals for X-ray binaries with VLT (IR fast photometry and polarization)
- Observing proposal of Active Galactic Nuclei with Chandra

PUBLICATIONS (updated till 26 February 2023)

All publications can be found in the following repositories:

- [https://ui.adsabs.harvard.edu/search/q=-docs\(818eb88d6e0062189e40c59f4994583b\)%20author%3A%22Casella%2C%20Piergiorgio%22&sort=date%20desc%2C%20bib-code%20desc&p=0](https://ui.adsabs.harvard.edu/search/q=-docs(818eb88d6e0062189e40c59f4994583b)%20author%3A%22Casella%2C%20Piergiorgio%22&sort=date%20desc%2C%20bib-code%20desc&p=0)
- <https://orcid.org/0000-0002-0752-3301>

Statistical summary (source: ADS)	
Total number of publications	229 (35 1st author)
Total number of REFEREED publications	92 (8 1st author)
Total number of citations	8873 (782 1st author)
h - index	40 (7 1st author)
g - index	92 (7 1st author)
i10 - index	93 (7 1st author)
i100 - index	19 (4 1st author)

#cit	Most cited 1st author publications
266	Casella P. , Belloni T., Stella L., 2005, ApJ, 629, 403 <i>The ABC of low-frequency quasi-periodic oscillations in Black-Hole Candidates: analogies with Z-sources</i>
168	Casella P. , Belloni T., Homan J., & Stella L., 2004, A&A, 426, 587 <i>A study of the low-frequency quasi-periodic oscillations in the X-ray light curves of the black hole candidate XTE J1859+226</i>
138	Casella P. , Altamirano D., Patruno A., Wijnands R., & v. d. Klis M., 2008, ApJL, 674, L41 <i>Discovery of coherent millisecond X-ray pulsations in Aql X-1</i>
121	Casella P. , Maccarone, T. J.; O'Brien, K. and 14 more, 2010, MNRAS, 404, 21 <i>Fast infrared variability from a relativistic jet in GX 339-4</i>

PEER-REVIEWED PUBLICATIONS

Full list of 92 PEER-REVIEWED publications

including:

2 publications on Nature**2 publications on Science****2 publications on Nature Astronomy**

1. *Investigating the origin of optical and X-ray pulsations of the transitional millisecond pulsar PSR J1023+0038*
Illiano, G.; Papitto, A.; Ambrosino, F. and 21 more, 2023A&A...669A..26I citations: 2
2. *Science case study and scientific simulations for the enhanced X-ray Timing Polarimetry mission, eXTP*
De Rosa, A.; Burgio, G. F.; Di Salvo, T. and 29 more, 2022MmSAI..93b.245D
3. *High-Energy observations of Stellar-mass Compact Objects: from CVs to the most luminous X-Ray Binaries*
Belloni, T.; Bazzano, A.; Casella, P. and 6 more, 2022MmSAI..93b..21B
4. *A Multiwavelength Study of GRS 1716-249 in Outburst: Constraints on Its System Parameters*
Saikia, P.; Russell, D. M.; Baglio, M. C. and 27 more, 2022ApJ...932...38S citations: 3
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