

Ilaria Caiazzo

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- 2024 - **Assistant Professor at the Institute of Science and Technology Austria** (ISTA) Klosterneuburg, Austria
- 2019 - 2024 **Burke - Sherman Fairchild Postdoctoral Fellow** in theoretical astrophysics at Caltech, US.
- 2015 - 2019 **Ph.D. in Physics** at the University of British Columbia, Canada, under the supervision of Prof. Jeremy Heyl.
- 2012 - 2015 **M.Sc. in Astrophysics**, University of Milan, Italy, under the supervision of Prof. Pierre Pizzochero. Graduated with honours.
- 2011- 2012 **Graduate Program in Theoretical Physics**, University of Pisa, Italy.
- 2008 - 2011 **B.Sc. in Physics**, University of Genova. Italy. Graduated with honours.
- 2007 - 2008 **Undergraduate Program in Philosophy**, University of Genova, Italy.

Awards and Fellowships

- 2023 knighted by the Italian President as Cavaliere dell'Ordine al Merito della Repubblica Italiana (OMRI OMCA)
- 2019 - 2024 Burke Postdoctoral Fellowship at Caltech, Pasadena, US
- 2017 - 2019 Four Year Fellowship for PhD Students, UBC, Vancouver, Canada
- 2017 Dante Ciccone Memorial Scholarship in Astronomy, UBC, Vancouver, Canada
- 2007 Valorizzazione delle eccellenze award, Ministero dell'Istruzione, Italy

Successful telescope proposals and grants

- 2022 PI, **NuSTAR** proposal Cycle 8, *Constraining Axions with ZTF J1901+1458*, 100ks. **Grant: \$82,740.**
- 2021 PI, **JWST** proposal Cycle 1, *Brown Dwarfs, White Dwarfs and Planetary Disks in an Ancient Stellar System*, 20.6 hours. **Grant: \$311,708.**
- 2021 PI, **HST** proposal Cycle 29, *The radius and magnetic field structure of the smallest white dwarf*, 10 orbits. **Grant: \$80,256.**
- 2021 PI, **TESS** proposal Cycle 4, *Hunting For White-Dwarf Merger Candidates With TESS*, 50 targets, 20 s cadence.
- 2020-2022 PI, *White Dwarf Merger Candidates*, ongoing program awarded several nights on LRIS and LRISp on **Keck** and CHIMERA and DBSP on the Hale telescope at **Palomar**.

- 2020-2022 Co-I, *Galactic Science using Discoveries from the Zwicky Transient Facility*, ongoing program awarded several nights on LRIS and ESI on **Keck** and WASP, CHIMERA and DBSP on the Hale telescope at **Palomar**.
- 2018-2022 Co-I on 7 proposals for the **Gemini** Observatory, for a total of 28.4 hours

Science working groups

- 2023 - Galactic Working Group Lead - **Cryoscope** telescope
- 2018 - Member, **IXPE** mission (launched in December 2021): Accreting Stellar-mass Black Holes, Accreting Neutron Stars and White Dwarfs, Magnetars, Radio-quiet AGNs and Sgr A* working groups
- 2018 - Project Scientist, **Colibri** mission (Funded Concept Study).
- 2016 - Member, **eXTP** mission (Launch in 2027): Strong Magnetism and Strong Gravity Working Groups

Teaching experience

- I was the lecturer of the *High Energy Astrophysics* course at UBC during the fall term of 2018. It is offered to last year undergraduates and to graduate students (<https://wiki.ubc.ca/Course:ASTR406>).
- I was the director of the *Simulating Stars Summer School* (www.stellar-astrophysics.org), which was held in June 2018, in Beijing, China. It was a school on stellar physics, from theory to simulations, intended for graduate students and postdocs.
- I was a lecturer at the TSI summer school in 2017 at TRIUMF, UBC.
- I was teaching assistant at the MESA summer school, in Santa Barbara, for the 2017, 2018 and 2019 editions.
- I taught a few classes of the graduate stellar evolution course at UBC (2017-2018).
- I helped designing the website and activities for a distance education astronomy course at UBC. The course is about stars and galaxies and is intended for non-science majors.
- I worked as teaching assistant for several astronomy courses at UBC.

Service

- Panelist for several NASA panels.
- Panelist for Caltech Optical Observatory telescope time-allocating committee.
- Referee for several journals (ApJ, MNRAS, Nature etc.)
- SOC for the Keck science meeting 2022
- Organized the "UV Club" seminar series at Caltech (2021, <https://ilariacaiazzo.com/uv-club/>)
- Served on the Colloquium Committee at Caltech (2020-2021)
- Served on the High Energy Astrophysics topical team for the Canadian Space Exploration workshop (2016).

- In 2017, I worked with different stakeholders in space science and industry to devise a path for Canada to build a sustained, balanced and competitive space program (<https://open.library.ubc.ca/cIRcle/collections/facultyresearchandpublications/52383/items/1.0352001>)

Outreach

I contribute in organizing outreach events at Caltech. Here is a selected list of outreach talks and activities:

- Chalk public Talk at KITP, Santa Barbara, November 2022.
- Public talk for “Associazione Astronomiamo” outreach group, January 2022
- Public talk at the “Society for scientific reads and conversations”, Genova, November 2021.
- Public talk: *Tiny but powerful: hunting for extreme white dwarfs*, Stargazing Lecture at Caltech, October 2021 <https://www.youtube.com/watch?v=w8bZ7fBSmrA&t=787s>
- I collaborated with PBS spacetime for the release of a video on my discovery of an extreme white dwarf. The video has more than a million views <https://www.youtube.com/watch?v=QLSIZg0npuA&t=154s>
- Public interview for the Italian national institute of astrophysics, July 2021 <https://www.youtube.com/watch?v=AeWFgUCxnto&t=54s>
- Public talk: *When do stars explode?*, Astronomy on Tap Los Angeles, March 2020

Publications and talk records

- Publications (list on page 5):
 - First and second author publications: 29 total of which 21 refereed, 2 under review, 1 book chapter and 6 white papers
 - Significant contribution: 28 total of which 22 refereed, 2 under review and 4 white papers
- Scientific presentations: 26 invited (of which 13 colloquia) and >20 contributed

Selected Invited Scientific Presentations

- “Ultra-massive, magnetized and double-faced: studying exotic white dwarfs with ZTF and Gaia”, **Colloquium** at MIT, Boston, MA, April 2023.
- “From the IR to X-rays: how new facilities are changing the way we study compact objects”, **Invited Talk**, Caltech, Pasadena, CA, February 2023
- “A new window on compact objects: highlights of the first year of IXPE”, **Invited Talk**, Cornell, Ithaca, NY, February 2023
- “From Gaia to LISA: white dwarf at the center of the stellar revolution”, **Colloquium**, Cornell, Ithaca, NY, February 2023

- “From Gaia to LISA: white dwarf at the center of the stellar revolution”, **Colloquium**, UC Berkeley, Berkeley, CA, February 2023
- “Ultra-massive, magnetized and double-faced: studying exotic white dwarfs with ZTF and Gaia”, **Colloquium** at the *Warsaw University*, Warsaw, Poland, October 2022.
- “Ultra-massive, merger remnants and double-faced: studying exotic white dwarfs with ZTF and Gaia”, **Colloquium** at the *Cornell University*, Ithaca, NY, October 2022.
- “Mergers and double-faced stars: studying exotic white dwarfs with ZTF and Gaia”, **Invited Seminar** at *N3AS Seminar Series*, Online, August 2022.
- “First IXPE observations of accreting X-ray pulsar Her-X1”, **Invited Talk** at the *COSPAR 2022*, Athens, Greece, July 2022.
- “The Polarization Detection of Her-X1 in context: Models of Accreting X-ray Pulsars”, **Invited Talk** at the *European Astronomical Society Annual Meeting*, Valencia, Spain, June 2022.
- “First IXPE observations of accreting X-ray pulsar Her-X1”, **Invited Talk** at the *240th AAS Meeting*, Pasadena, CA, June 2022.
- “Small But Mighty: Hunting for Extreme White Dwarfs”, **Colloquium** at the *Università degli Studi di Genova*, Genova, Italy, November 2021.
- “Small But Mighty: Hunting for Extreme White Dwarfs”, **Invited Seminar** at *Jerusalem University*, Jerusalem, Israel, November 2021.
- “Small But Mighty: Hunting for Extreme White Dwarfs”, **Colloquium** at the *University of Oklahoma*, Norman, OK, October 2021.
- “Small But Mighty: The Tiniest White Dwarf and Other Stories”, **Colloquium** at *Boston University*, Boston, MA, October 2021.
- “Small But Mighty: Hunting for Extreme White Dwarfs”, **Colloquium** at the *University of Maryland*, College Park, MD, October 2021.
- “Small But Mighty: The Tiniest White Dwarf and Other Stories”, **Colloquium** at the *University of British Columbia*, Vancouver, Canada, August 2021.
- “The effect of magnetic fields on the X-ray polarization from black holes”, **Invited Talk** at the conference *Polarized Radiation near Supermassive Black Holes*, Princeton Center for Theoretical Science, NJ, May 2021.
- “Small But Mighty: The Tiniest White Dwarf and Other Stories”, **Colloquium** at *Caltech*, April 2021.
- “Understanding neutron stars with X-ray polarization: the beginning of a new era”, **Colloquium** at the *University of New Hampshire*, Durham, NH, April 2021.

- “Hunting for white dwarf merger remnants with ZTF”, **Colloquium** at *Roma Tre*, Rome, Italy, February 2021.
- “The Colibrì mission”, **Invited Talk** at the conference *Multifrequency Behaviour of High Energy Cosmic Sources - XIII*, Palermo, Italy, June 2019.
- “Shining black holes: what gravitational waves won’t tell you”, **Invited Seminar** at the Black Hole Initiative at *Harvard*, Cambridge, Massachusetts, November 2018.
- “X-ray polarization from compact objects: QED effects”, **Invited Seminar**, *University of Tübingen*, Germany, July 2017
- “X-ray polarization from compact objects: QED effects”, **Invited Seminar**, *Washington University*, St. Louis, Missouri, April 2017

Publications - first and second author

- 2023 **Caiazzo I.** et al.
A rotating white dwarf shows different compositions on its opposite faces
Nature, Volume 620, Issue 7972, p.61-66
[10.1038/s41586-023-06171-9](https://doi.org/10.1038/s41586-023-06171-9)
- 2023 Fleury L., **Caiazzo I.**, and Heyl J.
The Origin of Ultramassive White Dwarfs: Hints from Gaia EDR3
Monthly Notices of the Royal Astronomical Society, Volume 520, Issue 1,
pp.364-374
[10.1093/mnras/stad068](https://doi.org/10.1093/mnras/stad068)
- 2023 González-Caniulef D., **Caiazzo I.**, and Heyl J.
Unbinned Likelihood Analysis for X-ray Polarization
Monthly Notices of the Royal Astronomical Society, Volume 519, Issue 4,
pp.5902-5912
[10.1093/mnras/stad033](https://doi.org/10.1093/mnras/stad033)
- 2023 Fleury L., **Caiazzo I.**, and Heyl J.
Constraining Axions with ZTF J1901+1458
Physical Review D, Volume 107, Issue 10, article id.L101303
[10.1103/PhysRevD.107.L101303](https://doi.org/10.1103/PhysRevD.107.L101303)
- 2023 Heyl J., **Caiazzo I.**, Richer H. and Miller D.
Reconstructing Nearby Young Clusters with Gaia EDR3
submitted to ApJ
[arXiv:2110.04296](https://arxiv.org/abs/2110.04296)
- 2022 **Caiazzo I.** et al.
Probing magnetar emission mechanisms with spectropolarimetry
Monthly Notices of the Royal Astronomical Society, Volume 514, Issue 4,
pp.5024-5034

- DOI: [10.1093/mnras/stac1571](https://doi.org/10.1093/mnras/stac1571)
- 2022 Fleury L., **Caiazzo I.** and Heyl J.
The Cooling of Massive White Dwarfs from Gaia EDR3
Monthly Notices of the Royal Astronomical Society, Volume 511, Issue 4,
pp.5984-5993
DOI: [10.1093/mnras/stac458](https://doi.org/10.1093/mnras/stac458)
- 2022 Miller D., **Caiazzo I.**, Heyl J. and Richer H.
The Ultramassive White Dwarfs of the Alpha Persei Cluster
The Astrophysical Journal Letters, Volume 926, Issue 2, id.L24, 6 pp.
DOI: [10.3847/2041-8213/ac50a5](https://doi.org/10.3847/2041-8213/ac50a5)
- 2022 Heyl J., **Caiazzo I.** and Richer H.
Reconstructing the Pleiades with Gaia EDR3
The Astrophysical Journal, Volume 926, Issue 2, id.132, 13 pp.
DOI: [10.3847/1538-4357/ac45fc](https://doi.org/10.3847/1538-4357/ac45fc)
- 2022 Rink K., **Caiazzo I.** and Heyl J.
*Testing General Relativity using Quasi-Periodic Oscillations from X-ray
Black Holes: XTE J1550-564 and GRO J1655-40*
Monthly Notices of the Royal Astronomical Society, Volume 517, Issue 1,
pp.1389-1397
DOI: [10.1093/mnras/stac2740](https://doi.org/10.1093/mnras/stac2740)
- 2021 **Caiazzo I.** et al.,
*A highly magnetised and rapidly rotating white dwarf as small as the
Moon*
Nature, Volume 595, Issue 7865, p.39-42
DOI: [10.1038/s41586-021-03615-y](https://doi.org/10.1038/s41586-021-03615-y)
- 2021 Richer H., **Caiazzo I.** et al.
Massive White Dwarfs in Young Star Clusters,
The Astrophysical Journal, Volume 912, Issue 2, id.165, 22 pp.
DOI: [10.3847/1538-4357/abdeb7](https://doi.org/10.3847/1538-4357/abdeb7)
- 2021 **Caiazzo I.** and Heyl J.
Polarisation of Accreting X-ray Pulsars I. A New Model
Monthly Notices of the Royal Astronomical Society, Volume 501, Issue 1,
pp.109-128
DOI: [10.1093/mnras/staa3428](https://doi.org/10.1093/mnras/staa3428)
- 2021 **Caiazzo I.** and Heyl J.
Polarisation of Accreting X-ray Pulsars II. Hercules X-1
Monthly Notices of the Royal Astronomical Society, Volume 501, Issue 1,
pp.129-136
DOI: [10.1093/mnras/staa3429](https://doi.org/10.1093/mnras/staa3429)
- 2020 **Caiazzo I.** et al.
Intermediate-mass Stars Become Magnetic White Dwarfs
The Astrophysical Journal Letters, Volume 901, Issue 1, id.L14

DOI: [10.3847/2041-8213/abb5f7](https://doi.org/10.3847/2041-8213/abb5f7)

- 2019 **Caiazzo I.**, Heyl J. and Turolla R.,
Polarimetry of Magnetars and Isolated Neutron Stars
Book Chapter: *Astronomical Polarisation from the Infrared to Gamma Rays, Astrophysics and Space Science Library, Volume 460.* ISBN 978-3-030-19714-8. **Springer Nature** Switzerland AG
DOI: [10.1007/978-3-030-19715-5_12](https://doi.org/10.1007/978-3-030-19715-5_12)
- 2019 Heyl J., **Caiazzo I.** et al.
The Colibrì High-Resolution X-ray Telescope
Astro2020: Decadal Survey on Astronomy and Astrophysics, instrument white papers, no. 175; *Bulletin of the American Astronomical Society*, Vol. 51, Issue 7, id. 175
DOI: <https://doi.org/10.1117/12.2562625>
- 2019 **Caiazzo I.** et al.
Hunting for ancient brown dwarfs: the developing field of brown dwarfs in globular clusters
Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers, no. 521; *Bulletin of the American Astronomical Society*, Vol. 51, Issue 3, id. 521
<https://baas.aas.org/pub/2020n3i521/release/1>
- 2019 **Caiazzo I.** et al.
Testing general relativity with accretion onto compact objects
Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers, no. 516; *Bulletin of the American Astronomical Society*, Vol. 51, Issue 3, id. 516,
<https://baas.aas.org/pub/2020n3i516/release/1>
- 2019 **Caiazzo I.** et al.
Unveiling the secrets of black holes and neutron stars with high-throughput, high-energy resolution X-ray spectroscopy
Canadian Long Range Plan for Astronomy and Astrophysics White Papers, LRP2020
<https://zenodo.org/record/3824441>
- 2019 Heyl J., **Caiazzo I.** et al.
Exploring the physics of neutron stars with high-resolution, high-throughput X-ray spectroscopy
Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers, no. 491; *Bulletin of the American Astronomical Society*, Vol. 51, Issue 3, id. 491
<https://baas.aas.org/pub/2020n3i491/release/1>
- 2018 **Caiazzo I.** and Heyl J. S.
Probing black holes magnetic fields with QED Galaxies, vol. 6, issue 2, p. 57
DOI: [10.3390/galaxies6030076](https://doi.org/10.3390/galaxies6030076)

- 2018 Heyl J. S. and **Caiazzo I.**
Strongly Magnetized Sources: QED and X-ray Polarization
Galaxies, vol. 6, issue 3, p. 76
DOI: [10.3390/galaxies6020057](https://doi.org/10.3390/galaxies6020057)
- 2018 **Caiazzo I.** and Heyl J. S.
Vacuum birefringence and the X-ray polarization from black-hole accretion disks
Physical review D, 97, 083001
DOI: [10.1103/PhysRevD.97.083001](https://doi.org/10.1103/PhysRevD.97.083001)
- 2018 Obertas A., **Caiazzo I.** et al.
The Onset of Convection and Freezing in the White Dwarfs of 47 Tucanae
Monthly Notices of the Royal Astronomical Society, Volume 474, Issue 1, p.677-682
DOI:[10.1093/mnras/stx2759](https://doi.org/10.1093/mnras/stx2759)
- 2017 **Caiazzo I.**, Gallagher S., Heyl J.
A Vision for Canadian Space Exploration
White Paper submitted to the Canadian Minister of Innovation, Science and Economic Development and the Space Advisory Board in response to a call for input into the development of Canada's Space Strategy.
DOI: [10.14288/1.0352001](https://doi.org/10.14288/1.0352001)
- 2017 Heyl J. S., **Caiazzo I.** et al.
Deep HST Imaging in 47 Tucanae: A Global Dynamical Model
The Astrophysical Journal, Volume 850, Issue 2, article id. 186
DOI:[10.3847/1538-4357/aa974f](https://doi.org/10.3847/1538-4357/aa974f)
- 2017 **Caiazzo I.** and Heyl J. S.
Polluting white dwarfs with perturbed exo-comets
Monthly Notices of the Royal Astronomical Society, Volume 469, Issue 3, p.2750-2759,
DOI: [10.1093/mnras/stx1036](https://doi.org/10.1093/mnras/stx1036)
- 2016 Antolini E., **Caiazzo I.** et al.
Using galaxy formation simulations to optimize LIGO follow-up observations
Monthly Notices of the Royal Astronomical Society, Volume 466, Issue 2, p.2212-2216
DOI: [10.1093/mnras/stw3292](https://doi.org/10.1093/mnras/stw3292)

Publications - significant contribution

- 2023 Zane, S., [...], **Caiazzo I.** et al
A Strong X-Ray Polarization Signal from the Magnetar 1RXS J170849.0-400910
The Astrophysical Journal Letters, Volume 944, Issue 2, id.L27, 12 pp.
[10.3847/2041-8213/acb703](https://doi.org/10.3847/2041-8213/acb703)

- 2023 Burdge K. B., [...], **Caiazzo I.** et al.
Orbital Decay in an Accreting and Eclipsing 13.7 Minute Orbital Period Binary with a Luminous Donor
The Astrophysical Journal Letters, Volume 953, Issue 1, id.L1, 11 pp.
[10.3847/2041-8213/ace7cf](https://doi.org/10.3847/2041-8213/ace7cf)
- 2023 El-Badry K, [...], **Caiazzo I.** et al.
The fastest stars in the Galaxy
The Open Journal of Astrophysics, vol. 6, id. 28
[10.21105/astro.2306.03914](https://doi.org/10.21105/astro.2306.03914)
- 2023 Rodriguez A. C., [...], **Caiazzo I.** et al.
Discovery of Two Polars from a Crossmatch of ZTF and the SRG/eFEDS X-ray Catalog
The Astrophysical Journal, Volume 945, Issue 2, id.141, 15 pp.
[10.3847/1538-4357/acbb6f](https://doi.org/10.3847/1538-4357/acbb6f)
- 2023 Rodriguez A. C., [...], **Caiazzo I.** et al.
SRGeJ045359.9+622444: A 55 Minute Period Eclipsing AM Canum Venaticorum Star Discovered from a Joint SRG/eROSITA + ZTF Search
The Astrophysical Journal, Volume 954, Issue 1, id.63, 19 pp.
[10.3847/1538-4357/ace698](https://doi.org/10.3847/1538-4357/ace698)
- 2023 Doroshenko V., [...], **Caiazzo I.** et al
Complex variations in X-ray polarization in the X-ray pulsar LS V +44 17/ RX J0440.9+4431
Astronomy & Astrophysics, Volume 677, id.A57, 10 pp.
[10.1051/0004-6361/202347088](https://doi.org/10.1051/0004-6361/202347088)
- 2023 Bolin B. T. , Noll K. S., **Caiazzo I.** et al.
Keck and Gemini spectral characterization of Lucy mission fly-by target (152830) Dinkinesh
Icarus, Volume 400, article id. 115562.
[10.1016/j.icarus.2023.115562](https://doi.org/10.1016/j.icarus.2023.115562)
- 2022 Taverna R. , [...], **Caiazzo I.** et al.
Polarized x-rays from a magnetar
Science, Volume 378, issue 6620, p. 646-650,
 DOI: [10.1126/science.add0080](https://doi.org/10.1126/science.add0080)
- 2022 Burdge K. B., [...], **Caiazzo I.** et al.
An optically discovered 62-minute orbital period black widow binary in a wide hierarchical triple
Nature, Volume 605, Issue 7908, p.41-45
 DOI: [10.1038/s41586-022-04551-1](https://doi.org/10.1038/s41586-022-04551-1)
- 2022 Burdge K. B., [...], **Caiazzo I.** et al.
An F type star in a 51-minute orbital period eclipsing binary
Nature, Volume 610, p. 467-471
 DOI: [10.1038/s41586-022-05195-x](https://doi.org/10.1038/s41586-022-05195-x)

- 2022 Doroshenko V., [...], **Caiazzo I.** et al.
Determination of X-ray pulsar geometry with IXPE polarimetry
Nature Astronomy
 DOI: [10.1038/s41550-022-01799-5](https://doi.org/10.1038/s41550-022-01799-5)
- 2022 Tsygankov S. et al., [...], **Caiazzo I.** et al.,
The X-ray polarimetry view of the accreting pulsar Cen X-3
The Astrophysical Journal Letters, Volume 941, Issue 1, id.L14, 16 pp.
 DOI: [10.3847/2041-8213/aca486](https://doi.org/10.3847/2041-8213/aca486)
- 2022 Richer H., [...], **Caiazzo I.** et al.
When Do Stars Go Boom?
The Astrophysical Journal Letters, Volume 931, Issue 2, id.L20, 8 pp.
 DOI: [10.3847/2041-8213/ac6585](https://doi.org/10.3847/2041-8213/ac6585)
- 2022 Ginzburg, S., [...], **Caiazzo I.** et al.
Slow convection and fast rotation in crystallization-driven white dwarf dynamos
Monthly Notices of the Royal Astronomical Society, Volume 514, Issue 3, pp.4111-4119
 DOI: [10.1093/mnras/stac1363](https://doi.org/10.1093/mnras/stac1363)
- 2021 Yao Y., [...], **Caiazzo I.** et al.
Multi-wavelength Observations of AT2019wey: a New Candidate Black Hole Low-mass X-Ray Binary
The Astrophysical Journal, Volume 920, Issue 2, id.120.
 DOI: [10.3847/1538-4357/ac15f9](https://doi.org/10.3847/1538-4357/ac15f9)
- 2021 van Roestel J., [...], **Caiazzo I.** et al.
A systematic search for outbursting AM CVn systems with the Zwicky Transient Facility
The Astronomical Journal, Volume 162, Issue 3, id.113, 13 pp .
 DOI: [10.3847/1538-3881/ac0622](https://doi.org/10.3847/1538-3881/ac0622)
- 2020 Marshall H., [...], **Caiazzo I.** et al.
A small satellite version of a broad-band soft x-ray polarimeter
Proceedings of the SPIE, Volume 11444, id. 114442Y 20 pp. (2020)
 DOI: [10.1117/12.2562811](https://doi.org/10.1117/12.2562811)
- 2020 Burdge K. B., [...], **Caiazzo I.** et al.
A systematic search of Zwicky Transient Facility data for ultracompact binary LISA-detectable gravitational-wave sources
The Astrophysical Journal, Volume 905, Issue 1, id.32, 26 pp.
 DOI: [10.3847/1538-4357/abc261](https://doi.org/10.3847/1538-4357/abc261)
- 2019 Krawczynski H. , [...], **Caiazzo I.** et al.
Using X-Ray Polarimetry to Probe the Physics of Black Holes and Neutron Stars
Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers, no. 150; Bulletin of the American Astronomical Society, Vol. 51, Issue 3, id. 150 (2019)

<https://baas.aas.org/pub/2020n3i150/release/1>

- 2019 Jahoda K. , [...], **Caiazzo I.** et al.
The X-ray Polarization Probe mission concept
Astro2020: Decadal Survey on Astronomy and Astrophysics, instrument white papers
[arXiv:1907.10190](https://arxiv.org/abs/1907.10190)
- 2019 Richer H. [...], **Caiazzo I.** et al.
A Massive Magnetic Helium Atmosphere White Dwarf Binary in a Young Star Cluster
The Astrophysical Journal, Volume 880, Issue 2, article id. 75
DOI: [10.3847/1538-4357/ab2874](https://doi.org/10.3847/1538-4357/ab2874)
- 2019 Hoffman, K., Heyl J., **Caiazzo I.** et al.,
The Colibrì Mission: Canada's Flag-ship X-ray Telescope
Canadian Long Range Plan for Astronomy and Astrophysics White Papers, LRP2020.
<https://doi.org/10.5281/zenodo.3765587>
- 2019 Ouellette N., [...], **Caiazzo I.** et al.
Astronomy Advocacy and Engagement
Canadian Long Range Plan for Astronomy and Astrophysics White Papers, LRP2020
<https://doi.org/10.5281/zenodo.3825128>
- 2019 Mann C., [...], **Caiazzo I.** et al.
A Multi-Mass Velocity Dispersion Model of 47 Tucanae Indicates No Evidence for an Intermediate Mass Black Hole
The Astrophysical Journal, Volume 875, Issue 1, article id. 1
DOI: [10.3847/1538-4357/ab0e6d](https://doi.org/10.3847/1538-4357/ab0e6d)
- 2019 De Rosa A., [...], **Caiazzo I.** et al.
Accretion in Strong Field Gravity with eXTP
Science China Physics, Mechanics & Astronomy, Volume 62, Issue 2, article id. 29504
DOI: [10.1007/s11433-018-9297-0](https://doi.org/10.1007/s11433-018-9297-0)
- 2019 Santangelo A., [...], **Caiazzo I.** et al.
Physics and Astrophysics of Strong Magnetic Field systems with eXTP
Science China Physics, Mechanics & Astronomy, Volume 62, Issue 2, article id. 29505
DOI: [10.1007/s11433-018-9234-3](https://doi.org/10.1007/s11433-018-9234-3)
- 2018 Chen, S., [...], **Caiazzo I.** et al.
Distances to the globular clusters 47 Tucanae and NGC 362 using Gaia DR2 parallaxes
The Astrophysical Journal, Volume 867, Issue 2, article id. 132
DOI: [10.3847/1538-4357/aae089](https://doi.org/10.3847/1538-4357/aae089)
- 2018 Ng C., [...], **Caiazzo I.** et al.

PSR J1755-2550: : A young radio pulsar with a massive, compact companion

Monthly Notices of the Royal Astronomical Society, Volume 476, Issue 4,
p.4315-4326

DOI:[10.1093/mnras/sty482](https://doi.org/10.1093/mnras/sty482)

- 2017 Elenbaas C., [...], **Caiazzo I.** et al.
Magnetar giant flare high-energy emission
Monthly Notices of the Royal Astronomical Society, Volume 471, Issue 2,
p.1856-1872
DOI: [10.1093/mnras/stx1727](https://doi.org/10.1093/mnras/stx1727)
- 2016 Zhang S. N. and the eXTP collaboration (including **C.I.**)
eXTP -- enhanced X-ray Timing and Polarization Mission
SPIE paper
DOI:[10.1117/12.2232034](https://doi.org/10.1117/12.2232034)
- 2016 Soffitta P. and the XIPE collaboration (including **C.I.**)
XIPE: the x-ray imaging polarimetry explorer
SPIE paper
DOI: [10.1117/12.2233046](https://doi.org/10.1117/12.2233046)