Stefano Marchesi
Curriculum Vitae et Studiorum

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Research interests

AGN-galaxy co-evolution / Obscured AGN / Very High Energy Galactic sources/ Multi-wavelength follow-up of Very High Energy Galactic and extragalactic sources/ Simulations for new X-ray missions / X-ray surveys / High-redshift cosmology / AGN luminosity function

Work

February 2023 - January 2026 (expected):	Researcher (RTD-A) at Università di Bologna - Progetto CTA+. Referenti: Prof. Cristian Vignali; Dr Roberta Zanin
June 2021- January 2023:	Researcher (TD) at INAF - Osservatorio di Astrofisica e Scienza dello Spazio di Bologna, Bologna (Italy).
July 2019- Today:	Adjunct Professor at Clemson University, Clemson, SC (USA).
June 2019- May 2021:	Post-doctoral fellow at INAF - Osservatorio di Astrofisica e Scienza dello Spazio di Bologna, Bologna (Italy). Supervisor: Dr Roberto Gilli
March 2016- June 2019:	Post-doctoral fellow at Clemson University, Clemson, SC (USA). Supervisor: prof. Marco Ajello.

Education

2012-2015:	Graduate Student at the **Department of Physics and Astronomy, Università di Bologna** (Italy) PhD Thesis title: *Black hole and galaxy growth over cosmic time: the Chandra COSMOS Legacy survey.* Advisors: Professor Cristian Vignali, Dr Francesca Civano, Dr Andrea Comastri.
June-September 2015:	Visiting graduate student at **Harvard-Smithsonian Center for Astrophysics** (Cambridge, MA, USA).
November 2013- May 2015:	Visiting graduate student at Y**ale Center for Astronomy and Astrophysics** (New Haven, CT, USA).
January-June 2013:	Visiting graduate student at **Dartmouth College** (Hanover, NH, USA).
2010-2012:	**Master Degree in Astrophysics and Cosmology** at the Department of Physics and Astronomy, **Università di Bologna**. Thesis: *Redshift evolution of metal abundance in clusters of galaxies*. Advisors: Professor Fabrizio Brighenti, Dr Alessandro Baldi, Dr Stefano Ettori.
2007-2010:	**Bachelor Degree in Astronomy** at the Department of Physics and Astronomy, **Università di Bologna**. Thesis: *The solar activity and its role in terrestrial climate*. Advisors: Professor Francesco Rosario Ferraro, Dr Barbara Lanzoni.

Membership and involvement in international collaborations

February 2023 - Today

Member of the **Cherenkov Telescope Array Observatory** (CTAO) collaboration. *The CTAO is a next generation Very High Energy Observatory, that will cover with unprecedented sensitivity the energy range between 20 GeV and 300 TeV. The Observatory is currently being built in the Northern Hemisphere, in the Canary Islands, and in the Southern Hemisphere, in Chile. One of the telescopes (the Large Size Telescope, LST-1) already operational, and the first subarray of Large, Medium and Small Size telescopes that will be ready by 2027. CTAO will open a new window of discoveries in both Galactic and Extragalactic astrophysics, and will play a key role in the 2030s framework of multimessenger astrophysics.*

- Member of the **Extragalactic Working Group**. In 2025, I published a first-author paper (A new look at the extragalactic very high energy sky: Searching for TeV-emitting candidates among the X-ray-bright, non-Fermi-detected blazar population, Marchesi et al. 2025, A&A, 693, 142) where we showed how a non negligible sample of extreme blazars, X-ray detected but not Gamma-ray detected with Fermi-LAT, are likely to be detected with CTAO in the TeV regime. This will be a new population of extreme emitters, whose emission mechanisms I am currently studying using different blazar models; part of this effort will be published in Fall 2025 in the Master Thesis of Federica Sibani, a Master student in Astrophysics and Cosmology at Università di Bologna which I am supervising.
- **Chair of the Data Validation Technical Task Group** (TTG) for the CTAO Internal Science Data Challenge (SDC; Spring 2024). The Internal SDC presented to the members of the CTAO Consortium one year of simulated CTAO observations, giving the users the opportunity to test the data reduction and analysis models, and get a first understanding of CTAO potential. As Chair of the Data Validation TTG, I prepared scripts and notebooks to assess the correctness of the simulated data before the release to the community.
- **Chair of the Team coordinating the Technical Task Groups for the CTAO Open Data Challenge** (2024-2025). Building on the CTAO Internal SDC, the Open SDC (expected start: Fall 2026) will include 7 years of simulated CTAO data, and it will be open to the whole community. As Chair of the TTGs coordinating team, I work to facilitate the work of the eight TTGs, which are formed by scientists and members of the computing team.
- **Chair of the CTAO Summer School Italian Local Organizing Committee** (2024-2025). In two editions of the School, over 50 graduate students from across the world had the chance to learn about Very High Energy astrophysics, as well as to visit the LST telecope (the first of the telescopes forming the CTAO array) at La Palma. As Chair of the Italian LOC, I deal with different organization aspects, and I am the point of contact for students and professors before and during the School. I also give a lesson on how to write scientific proposals for guest observer programs.
- **Organizer** (together with Dr Eleonora Torresi) of the **biweekly meeting of the Bologna Very High Energy community**. The meetings give graduate students and young postdocs working in the VHE field the opportunity to present updates on their work, receiving feedback from their peers as well as from senior researchers.
- **Member of the Scientific Organizing Committee** of the two **meetings of the Very High Energy-Gamma ray** (VHEGAM) I**talian community**. The 2024 meeting was held in Bologna (https://indico.ict.inaf.it/event/2657/overview), the 2025 one in Bari (https://agenda.infn.it/event/45940/page/9999-organizing-committees).

2023 - Today **CoI of the Advanced X-ray Imaging Satellite (AXIS) probe team.**

AXIS is a X-ray probe mission selected by NASA for the Phase A Study, that will lead, in 2026, to the selection of either AXIS or the far infrared mission PRIMA. If approved, AXIS will be launched in 2032. AXIS will combine Chandra-like angular resolution (but with a much more stable PSF across a wide field of view) with unprecedented collecting area in the 0.5-10 keV band. AXIS surveys will achieve fluxes 1-2 orders of magnitude fainter (on the same areas) than current X-ray surveys, allowing us to study whole new populations of X-ray sources: the extragalactic surveys will detect the first SMBH accreting at z~8, while the Galactic Plane survey will detect hundred of thousands of sources, allowing us to characterize with unprecedented accuracy the origin of SNIa, while at the same time finding promising gravitational wave emitters in ultracompact binaries. In doing so, AXIS in excellent synergy with facilities operating at other wavelengths (JWST, Roman Space Telescope, Euclid, LISA, CTAO…). Furthermore, AXIS will be a community mission: with 70% of the observing time in the first five years of the telescope life dedicated to Guest Observer programs.

- I am the **only AXIS col from an Italian institution** (https://axis.umd.edu/team).
- I am **in charge of the end-to-end simulations of the AXIS extragalactic surveys**. Building on the expertise I developed in 2020, when I published as first author the first peer-reviewed paper on the AXIS mission (Marchesi et al. 2020, A&A, 642, 184), I have been invested of the role of simulating end-to-end surveys with AXIS using the SIXTE tool, testing different telescope layouts and different AGN populations (e.g., heavy vs light SMBH seeds). The final producst of these simulations are images, spectra, source lists, and area vs flux curves; all these products are made available to the AXIS team, that can then used for their specific scientific cases.
- **Key member of the Team working on the AXIS 1.1 Pillar**: *What seeds supermassive black holes?* (Chair: Dr Nico Cappelluti). Through simulations and the analysis of their outcome, I contribute to the definition of the scientific case on the formation and accretion of the first supermassive black holes in the early Universe. Specifically, I worked with the Chair of the Pillar Team to pick the best combination of area and exposure to maximize the chance of distinguishing between the predictions of different theoretical models.
- **Member of the AXIS Simulations Team** (Chair: Dr Andrew Ptak, NASA-GSFC). The team meets on a biweekly basis and discusses developments in simulations tools, as well as on the most up-to-date specifics of the telescope and how to implement them in the tools.
- **Reference for the Bologna scientific community** (INAF-OAS, Università di Bologna, IRA-INAF): I contributed to several case studies of AXIS guest observer programs developed by the Bologna community, that will be published in July on ArXiv in a White Paper.

2017 - Today **Founder (together with Professor Marco Ajello) of the Clemson-INAF Compton Thick AGN collaboration.**

*The main goal of the Clemson-INAF Compton thick AGN project is to have a c**omplete census and characterization of the heavily obscured active galactic nuclei (AGN) in the local Universe** selected in the hard X-rays. To do so, we use observations from multiple X-ray facilities (NuSTAR, Chandra, XMM-Newton, Swift-XRT and -BAT, IXPE) and a range of models (MyTorus, borus02, UXClumpy, RXTorus) specifically developed to characterize the X-ray emission of heavily obscured AGN. A summary of the results, as well as publicly accessible database of the products of our work (spectra, models, catalogs) can be found at https://science.clemson.edu/ctagn/*

- *The group (https://science.clemson.edu/ctagn/people/) is made of researchers and graduate students based mostly at **Clemson University** (Clemson, SC, USA), or in **Bologna**, Italy (both at **INAF-OAS** and at **Università di Bologna**); additional collaborators work in different institutions in Italy and in the US.*
- **Four former graduate students** (Xiurui Zhao, Ross Silver, Dhrubojyoti Sengupta, Andrealuna Pizzetti) obtained their **PhD** either at Clemson University or at Università di Bologna with **theses on the Clemson-INAF Compton thick AGN project.**
- Between 2017 and June 2025, we published **25 peer-reviewed papers**: the whole list is avalable at https://ui.adsabs.harvard.edu/user/libraries/YeF2ciSxQqutwGo3RPVgUg. I am the **first author of six of them**, and the second author of other ten. These articles have been **cited 434 times** (and in particular my first-author articles have been cited 195 times).
- Our group has regularly got time through Guest Observer programs from all the major X-ray telescopes (NuSTAR, Chandra, XMM-Newton, Swift-XRT, NICER). Between 2020 and 2025, we got **19 proposals approved** by the above mentioned facilities, as well as **3 NASA Archival Data Analysis Programs (ADAP) funded**.

2013 - Today **Member of the COSMOS collaboration** (https://cosmos.astro.caltech.edu/page/members).

The COSMOS collaboration includes over 100 astronomers from across the world. The COSMOS field is an equatorial, ~2.2 deg^2 field, that over the years have been observed with a variety of facilities across the electromagnetic spectrum (Chandra, XMM-Newton, HST, Subaru, JWST, Spitzer, Herschel, ALMA, JVLA…)

- **Reference person** (together with Dr Francesca Civano) **of the Chandra COSMOS Legacy Survey**. The Chandra COSMOS Legacy survey covered with a total of 4.6 Ms the 2.2 deg^2 COSMOS field. I was in charge of the source detection process that lead to the production of the X-ray catalog of over 4000 sources published in Civano et al. (2016, ApJ, 819, 62).
- **Leading author of the Chandra COSMOS optical/IR counterparts catalog** (Marchesi et al. 2016, ApJ, 817, 34). The paper presents the catalog of optical and near-infrared counterparts of the X-ray sources, together with their redshifts (spectroscopic and photometric). I developed the pipelines to associate the X-ray sources with the optical ones, combining the positional information with weights based on the optical and X-ray properties of the sources.
- **Leading author of the paper on the Chandra COSMOS z>3 sample** (Marchesi et al. 2016, ApJ, 827, 150). The paper presents the properties of the high-redshift AGN in the Chandra COSMOS field, and compares the X-ray space density with those computed in the optical, showing how X-ray surveys sample a population of less luminous and/or more obscured AGN that are missed by optical surveys.
- **Leading author of the paper on the Chandra COSMOS X-ray spectral properties** (Marchesi et al. 830, 100). The paper reports the X-ray spectral properties of the ~2000 brightest AGN in the sample, providing in particular information on their Hydrogen column density (NH, i.e., how much are they obscured). I wrote the routines to automatize the spectral analysis of all the Chandra COSMOS sources, and performed a series of statistical tests to search for trends between different subsamples of AGN (for example, broad line versus narrrow line AGN; Type 1 AGN from the spectral energy distribution (SED) fitting versus Type 2 AGN or sources with their SED dominated by the host galaxy…). For example, we found an increasing trend of NH with the host galaxy SFR, suggesting that part (and in some cases most) of the obscuration can take place at the host scale, rather than at the nuclear scale alone.
- **I was directly involved in many of the projects which made use of the Chandra COSMOS data and catalogs**. The Chandra COSMOS catalogs and data have in fact been extensively used by the COSMOS collaboration and by the astrophysical community in the last 10 years. For example, I contributed to the X-ray spectral analysis of a **population of newly discovered intermediate supermassive black holes** (IMBHs) detected in dwarf galaxies in the COSMOS Field up to z~2.4 (Mezcua, Civano, Marchesi et al. 2018, MNRAS, 478, 2576). Accreting IMBHs are rare and elusive sources that are studied as proxies of the first black hole seeds: in this work, we determined that our results supported a direct collapse formation mechanism for the seed BHs in the early Universe. More recently, Chandra COSMOS data, combined with JWST Near-Infrared Spectrograph integral field unit observations, allowed us to d**iscover a candidate super-Eddington-accreting black hole ~1.5 Gyr after the Big Bang** (Suh et al. 2025, Nature Astronomy, 9, 271).

2021 - Today

Member of the J1030 collaboration.

The J1030 collaboration (http://j1030-field.oas.inaf.it/) is an international collaboration started at INAF-OAS Bologna by Dr Roberto Gilli and Dr Marco Mignoli. The J1030 field is centered around the z=6.31 QSO SDSS J1030+0524, which is powered by a billion solar mass black hole. In 2012, optical imaging campaigns aimed at searching large scale structures (LSSs) around z~6 QSOs found this to be the most overdense field. This gave the start to a multi-year campaign aimed at covering the field with a wide range of facilities (LOFAR, JVLA, ALMA, Spitzer, HST, LBT, Chandra). Currently, the J1030 field is the deepest field in the radio band, and the fifth deepest field in the X-rays.

- **Leading author of the Chandra J1030 optical/IR counterparts catalog** (Marchesi et al. 2021, A&A, 656, 117). I worked on the X-ray/optical-IR counterpart association process, and used different tools (Hyperz, EaZy) to compute the photometric redshifts of all the ~250 X-ray sources. I am also the administrator of the webpage where all the products of the catalog are available to the public (http://j1030-field.oas.inaf.it/xray_redshift_J1030.html).
- **Leading author of the paper on the discovery of a LSS at z~2.8 in the J1030 field** (Marchesi et al. 2023, A&A, 673, 97). I was the PI of a LBT-MODS optical spectroscopic campaign to follow-up Chandra J1030 AGN that lead to the discovery of a z~2.8 overdensity in the J1030 field. We found that the X-ray AGN in the structure are hosted in galaxies that are significantly more massive than the non-AGN galaxies at the same redshift, which can explain why X-ray AGN are efficient tracers of LSSs.
- **Supervisor, together with Dr Roberto Gilli, of Matilde Signorini**, at the time a graduate student at Università di Firenze, now a PostDoc. We worked on the **Chandra J1030 X-ray spectral catalog**, analyzing the X-ray spectra of all the sources with the goal of measuring their Hydrogen column density. The results have been published in Signorini, Marchesi et al. (2023, A&A, 676, 49). We observe an increasing trend of obscuration with redshift, and compare our results with predictions of analytic models that ascribe the increasing trend in obscuration with z to the dense interstellar medium (ISM) of their hosts.

2024 - Today

Member of the MAGIC collaboration.

MAGIC is a system of two Cherenkov telescopes operating since 2004 (since 2009 in dual mode). MAGIC covers the 50 GeV - 30 TeV energy range, and in 20 years of observations has detected (often for the first time in this part of the electromagnetic spectrum) a wide range of Galactic and extragalactic extreme emitters.

- Leader (together with Professor Michele Doro of University of Padova) of the **MAGIC Legacy working group**. The goal of the WG is to make accessible to the whole community the high-level products (light curves, spectral energy distributions) presented in the MAGIC papers.

2020 - Today

Member of the (New)Athena Scientific Working Group 2.1: *Formation and growth of the earliest SMBH* and 2.2: SWG 2.2 *Understanding the build-up of SMBH and galaxies*.

- I worked on the **development of new mock catalogs of AGN and non-active galaxies** (presented in Marchesi et al. 2020, A&A, 642, 184) that are now extensively used in *NewAthena* simulations.

January 2023 - Februar y 2024

CoI of the Survey and Time-domain Astrophysical Research eXplorer (STAR-X) X-ray mission, finalist of the NASA MIDEX to select a new time-domain space telescope.

- I was **in charge of the end-to-end simulations of the STAR-X extragalactic surveys**. We tested different survey strategies, with the goal of maximizing the time-domain effectiveness of the mission.

2022 - 2024

Member of the High-Energy X-ray Probe (HEX-P) **Black Hole Growth over Cosmic Time Pillar**. HEX-P was one of the probes competing for the NASA 2023 Probe call.

- I was **in charge of the end-to-end simulations of the STAR-X extragalactic surveys**. and on simulations of heavily obscured AGN spectra, testing different HEX-P technical configurations.

Teaching

2023-Today Course "**Storia e Didattica dell'Astronomia**". 36 hours (6 CFU).
Optional class offered by the Master Degree "Didattica e Divulgazione delle Scienze Naturali" at Università di Bologna, Italy.

2023-Today Course "**Istituzioni di Fisica**". 30 hours (3 CFU).
Mandatory course in the Bachelor Degree "Compositi Polimerici" at Università di Bologna, Italy.

2019-Today Teaching assistant in the "**Multiwavelength Astrophysics Laboratory**", Module 1. 48 hours (2 CFU).
Mandatory class in the Master Degree in Astrophysics at Università di Bologna, Italy. Reference: Prof. Cristian Vignali (cristian.vignali@unibo.it).

Spring 2025 Three lessons in the course "**High Energy Astrophysics**", one on X-ray telescopes design, one on surveys with X-ray telescopes. 6 hours.
Optional course in the Master Degree "Astrophysics and Cosmology", Università di Bologna, Italy. Reference and professor of the course: Prof. Marcella Brusa (marcella.brusa3@unibo.it).

October 2024 Two lessons in the PhD Course "**Advanced topics in astrophysics II: High-energy astrophysics, AGN**" for Astrophysics PhD candidates at Università di Bologna, Bologna, Italy. 4 hours.
Titles of the lessons: ""From observational phenomenology to physics: the internal structure of AGN as inferred from X-ray emission."; "X-ray Surveys and demography". Reference: Prof. Marcella Brusa (marcella.brusa3@unibo.it).

September 2024 Introductory lesson on "**How to read a scientific paper**" for new students attending the Master Degree in Astrophysics and Cosmology, Università di Bologna, Italy. 2 hours. Reference: Prof. Cristian Vignali (cristian.vignali@unibo.it).

Spring 2018 Lesson on Comets in Dr Ádámkovics Undergrad course (**ASTR-2200: Planetary Science**), Clemson University, Clemson (SC). 2 hours.

Spring 2018 Three lessons on different astrophysical topics in Dr Ajello's Undergrad course (**ASTR-1020: Stellar Astronomy**), Clemson University, Clemson (SC). 6 hours.

Fall 2017 Four lessons on different astrophysical topics in Dr Ajello's Undergrad course (**ASTR-1020: Stellar Astronomy**), Clemson University, Clemson (SC). 8 hours.

Spring 2016 Lesson on Active Galactic Nuclei in Dr Ajello's Undergrad course (**ASTR-3030: Galaxies and Cosmology**), Clemson University, Clemson (SC). 2 hours.

Academic duties and institutional service

Spring 2024-Today Member of the "**Commissione AQ**" (*Assicurazione di qualità*; Quality Ensuring Committee) of the Corso di Laurea Professionalizzante (Bachelor Degree) in Compositi Polimerici, Università di Bologna, Italy. Reference: Prof. Andrea Zucchelli (a.zucchelli@unibo.it). The Commissione AQ evaluates annually the Course program, and proposes changes based on the feedback received by students, professors, and other stakeholders (both academic and non-academic).

March 2025 Member of one of the **committees for the final evaluation of PhD candidates in Astrophysics**, Cycle 37, Università di Bologna, Italy. Reference: Prof. Daniele Dallacasa (daniele.dallacasa@unibo.it).

June 2024-2025 **Chair** of the **Local Organizing Committee** of the Italian part of the **CTAO Summer School**. Bertinoro, FC (Italy). Reference: Dr Roberta Zanin (roberta.zanin@cta-observatory.org)

September 2023 Member of the **committee** for the final evaluation of **Bachelor Degree** candidates in Astronomy, Università di Bologna, Italy. Reference: Prof. Alessio Mucciarelli (alessio.mucciarelli@unibo.it)

September 2019 Member of the **Local Organizing Committee** at the **Bologna X-ray Astronomy 2019 Conference**. Reference: prof. Marcella Brusa (marcella.brusa3@unibo.it)

Mentoring

2025 Thesis Advisor of **Federica Sibani**, Master Thesis in Astrophysics and Cosmology at Università di Bologna, Italy. Title of the project: “Characterizing the emission mechanisms of Extreme High Synchrotron Peak blazars: a CTAO pathfinder project”. Planned graduation: October 2025.

2025 Thesis Advisor of **Lucrezia Aste**, Master Thesis in Physics at Università di Bologna, Italy. Title of the project: “La storia come maestra: un esperimento di didattica dell’astronomia nella scuola secondaria di secondo grado”. Planned graduation: October 2025.

2025 Thesis Advisor of **Zaira Angela Di Gregorio**, Master Thesis in “Didattica e Comunicazione delle Scienze Naturali” at Università di Bologna, Italy. Title of the project: "Analisi e confronto di metodologie didattiche per l'insegnamento dell'astronomia nella Scuola Secondaria di Primo Grado”. Planned graduation: October 2025.

2023-2024 Thesis Advisor of **Giorgia Ferrante**, Master Thesis in “Didattica e Comunicazione delle Scienze Naturali” at Università di Bologna, Italy. Title of the project: "Raccontare, ascoltare, comprendere: fiaba e scienza attorno a un focolare”. Graduated in July 2024 with 110/110 *cum laude*.

2021-2024 Co-advisor of the PhD candidate **Dhrubojyoti Sengupta** (Advisor: prof Cristian Vignali. Mr Sengupta thesis project is focused on the characterisation of heavily obscured accreting supermassive black holes. Università di Bologna, Dipartimento di Fisica e Astronomia, Bologna (Italy).

2020-2024 Co-advisor, together with Dr Marco Ajello, of **Núria Torres-Albà**, PostDoctoral Fellow. Dr Torres-Albà main topic of research are variable obscured active galactic nuclei. Clemson University, Clemson (SC)

2018-2023 Co-advisor, together with Dr Marco Ajello, of the PhD candidate **Ross Silver**. Dr Silver obtained his PhD in 2023. Dr Silver thesis project is focused on the discovery and characterization of heavily obscured, X-ray selected active galactic nuclei. Clemson University, Clemson (SC).

2017-2022 Co-advisor, together with Dr Marco Ajello, of the PhD candidate **Jordan Eagle**. Dr Eagle obtained her PhD in 2023. Dr Eagle thesis project was focused on the discovery and characterization of very high-energy Galactic sources detected using the *Fermi*-LAT telescope. Clemson University, Clemson (SC)

2018-2022 Co-advisor, together with Dr Marco Ajello, of the PhD candidate **Meenakshi Rajagopal**. Dr Rajagopal obtained her PhD in 2022. Her thesis project was focused on the characterization of previously unclassified sources detected using the *Fermi*-LAT telescope. Clemson University, Clemson (SC)

2017-2021 Co-advisor, together with Dr Marco Ajello, of the PhD candidate **Xiurui Zhao**. Dr Zhao got his PhD in 2021. His thesis project was focused on the discovery and characterization of heavily obscured, X-ray selected active galactic nuclei. Clemson University, Clemson (SC).

2016-2017 Supervisor of **David Dickson** (undergraduate at Clemson University, SC)
Project title: Spatial resolved metallicity in intermediate redshift galaxy clusters

2016-2017 Supervisor of **Jonathan Kadan** and **Kellye Burns** (undergraduates at Clemson University, SC). Project title: Rare sources in the 100-month BAT catalog

2016-2017 Supervisor of **Luke Tramblay** (undergraduate at Clemson University, SC)
Project title: X-ray spectral analysis of Swift-BAT selected low-luminosity AGN

Awarded observing time

Over **2 Ms** (which is, over 23 days) of observations granted by **NASA X-ray telescopes** through peer-reviewed Guest Observer programs: 1.17 Ms with *NuSTAR*; 610 ks with XMM-*Newton*; 405 ks with *Chandra*; 148 ks with *Swift*-XRT. Over **220 hours of observations** with **optical ground telescopes** trough peer-reviewed Guest Observer programs by different institutions/facilities (ESO, Fermi, INAF, NOIRLab).

2025	*NuSTAR + XMM-Newton*	Dissecting the torus: a golden sample of heavily obscured AGN with multi-epoch NuSTAR and XMM observations (Proposal 11159, NuSTAR Cycle 11, 225 ks NuSTAR + 126 ks XMM-Newton)
2024	*Chandra+NuSTAR*	A joint Chandra and NuSTAR monitoring of a changing-look Compton thick AGN (Chandra Cycle 26, proposal 26700102, 90 ks Chandra + 75 ks NuSTAR)
2024	*Very Large Telescope (VLT)*	Tracing the structure of an assembling z=2.8 protocluster with FORS2 (ESO Cycle 113, proposal 113.26C5, 12 hours with FORS2 spectrograph)
2023	*Large Binocular Telescope (LBT)*	Tracing the structure of an assembling z=2.8 protocluster with MODS (Proposal IT-2023B-013, 12 hours with MODS spectrograph)
2023	*Chandra*	Searching for hidden accreting supermassive black holes in the first JWST-EIGER field (Chandra Cycle 25, Proposal 25700245, 200 ks)
2023	*New Technology Telescope*	Outside the halo: Tracking the Mpc-scale structure of a z~1.7 protocluster with SoFI (ESO Cycle 111, 0.6 nights with SoFI)
2022	*NuSTAR*	2FHLJ1745.1-3035: A New Efficient Galactic Accelerator (Proposal 8046, Cycle 8, 100 ks)
2021	*Large Binocular Telescope (LBT)*	Spectroscopically confirming with MODS three candidate obscured z>5 AGN in the deep J1030 Field (Proposal 2021/2022_35, 8 hours)
2021	*NuSTAR + XMM-Newton*	A joint *NuSTAR* and XMM-*Newton* monitoring of a candidate changing-look Compton thick AGN (Proposal 7192, *NuSTAR* Cycle 7, 75+75 ks)
2020	*Chandra*	A spatially resolved X-ray analysis of an extreme candidate pulsar wind nebula (Proposal 22500360, Cycle 22, 25 ks)
2019	*XMM-Newton*	A XMM-*Newton* monitoring of a candidate changing-look Compton thick AGN (Proposal 086298, Cycle AO-19, 28 ks)
2019	*Chandra*	Compton thick AGN: the hunt continues (Proposal 21700085, Cycle 21, 50 ks)
2019	*NuSTAR + XMM-Newton*	The Compton thick AGN Legacy Project: a complete sample of NuSTAR-observed nearby Compton thick AGN (*NuSTAR* Large program 5197, Cycle 5, 500+220 ks)
2018	*Gemini-N, Gemini-S*	Towards a full 3D mapping of the >10 GeV extragalactic sky: a spectroscopic follow-up campaign of unidentified 3FHL sources (Fermi proposal 111128, Cycle 11, 5 nights)
2018	*Gemini-S*	Characterizing a shock-cloud interaction on the Western edge of the Vela SNR (coI; Fermi proposal 111197, Cycle 11, 1 night)
2018	*NuSTAR + XMM-Newton*	Heavily obscured AGN: the physics behind the obscuration (*NuSTAR* Proposal 4253, Cycle 4, 90+60 ks)
2018	*Swift-XRT*	The Legacy of Swift-BAT: The Tale of AGN at Hard X-rays (Proposal 1417036, Cycle 14, 145 ks)
2017	*Chandra*	Compton thick AGN: the hunt continues (Proposal 19700430, Cycle 19, 40 ks)
2017	*NuSTAR + XMM-Newton*	Compton thick AGN: the physics behind the obscuration (Proposal 3258, *NuSTAR* Cycle 3, 100+100 ks)
2017	*KPNO-CTIO 4m-telescopes*	Full 3D Mapping And Identification Of The >10 Gev Extragalactic Sky (Fermi proposal 101287, Cycle 10, 15 nights)
2017	*Swift-XRT*	ToO observation of 2FHL J0705.9+0245 (ObsID 10047, 3 ks)
2016	*KPNO 4m-telescope*	Towards the first complete sample of >50 GeV blazars (NOAO 17A, 12 hours)
2016	*XMM-Newton + NuSTAR*	The Unique Case of PKS J1220+0203: a jetted AGN with a broad Iron Line (*XMM-Newton* AO16, 50+50 ks; co-I)

Awarded research funding

1.4 M$ granted through NASA Guest Observer or Data Analysis programs. 125 k€ granted by the Istituto Nazionale di Astrofisica (INAF), Italy. Details on the approved NASA programs are available in the *Awarded observing time* section in the previous page.

2025	*NuSTAR* proposal 11159, 111 k$.
2024	Chandra proposal 26700102, 16 k$.
2023	NASA Astrophysics Data Analysis, proposal “Unveiling Obscured Accretion in the Local Universe”: 300 k$.
2023	*NuSTAR* proposal 7192, XMM-*Newton* fair share: 20 k$.
2022	Finanziamento di Astrofisica Fondamentale INAF. 20 k€.
2021	*NuSTAR* proposal 7192, 99 k$.
2020	PRIN-INAF 2019, proposal “Piercing through the clouds: a multiwavelength study of obscured accretion in nearby supermassive black holes”. Funded as “Coordinatore speciale”. 34+70 k€.
2020	*Chandra* proposal 22500360, 22 k$.
2019	*NuSTAR* proposal 5197, 116 k$.
2019	*Chandra* proposal 21700085, 61 k$.
2019	*NuSTAR* proposal 5197, XMM-Newton fair share: 36 k$.
2018	NASA Astrophysics Data Analysis, proposal “Compton-Thick AGN: the Final Quest”: 250 k$.
2018	*Fermi* proposal 111128: 60 k$.
2018	*Fermi* proposal 111197: 60 k$ (scientific PI).
2018	*NuSTAR* proposal 04253. 75k$.
2017	*Chandra* proposal 19700430. 63 k$.
2017	*Fermi* proposal 101287. 60 k$.
2017	*NuSTAR* proposal 03258. 55 k$.

Press releases and mentions in the news

2025	**Università di Bologna Magazine**: news on the selection of AXIS by NASA in the Probe competition Phase I: https://magazine.unibo.it/archivio/2025/01/20/axis-the-most-powerful-x-ray-space-telescope
2024	**Quotidiano Nazionale** (Italian newspaper): news on the SuperEddington supermassive black hole discovered in the Chandra COSMOS field using JWST data. https://www.quotidiano.net/esteri/buco-nero-lid-568-tsw6gpzx
2022	**MediaINAF**: news on the discovery of quiescent supermassive black holes in the COSMOS field. https://www.media.inaf.it/2022/05/31/un-nascondiglio-per-buchi-neri-supermassicci/
2021	**MediaINAF**: news on the discovery of gamma-ray emission in a population of ultrafast outflows. https://www.media.inaf.it/2021/11/10/raggi-gamma-ultra-fast-outflows/
2020	**MediaINAF**: news on the discovery of a relativistic jet forming from the merging of two galaxies. https://www.media.inaf.it/2020/04/07/spremuta-di-galassie-con-getto-relativistico/

Awards

2020	Premio congiunto SAIt-SIF “Giovanni Bignami” (https://www.sif.it/attivita/altri_premi/bando_bignami/vincitori).

Peer reviewing

2016-Today	Referee for the Astrophysical Journal, Monthly Notices of the Royal Astronomical Society, and Astronomy and Astrophysics.
December 2024	Member of the Swift Guest Investigator Cycle 21 peer review panel.
December 2023	Reviewer of a Consolidator Grant Application for the Swiss National Science Foundation.
April 2023	Member of the Fermi Cycle 16 peer review panel.
January 2023	Reviewer of a SONATA-BIS12 grant proposal for the National Science Center, Poland.
January 2022	Member of the NICER Cycle 4 peer review panel.
June 2021	Member of the *Chandra* Cycle 23 peer review panel.
August 2019	Member of the NASA Astrophysics Data Analysis proposal evaluation panel.
March 2018	Member of the *NuSTAR* Cycle 4 peer review panel.

Public outreach

September 2024	Member of the team organizing the CTAO public outreach stand at the “Notte dei Ricercatori” event in Bologna (Italy).
November 2023 -2024	Member of the team organizing the CTAO public outreach stand at the “Futuro Remoto” Science Festival in Napoli (Italy).
November 2022-Today	Public outreach events at the high school “Liceo Ulivi” in Parma (Italy). Presentation of different astrophysics topics (such as the solar activity and its connection to climate changes on Earth, or the formation and evolution of galaxies and supermassive black holes). These events have been the starting point for the students to take part at different Science competitions. Reference: prof. Niccolò Vernazza (n.vernazza@liceoulivi.it)
October 2018	Judge at the public outreach competition for graduate students “3MT - Three Minutes Talk”, Clemson University, Clemson, SC (USA).
August 2018	Judge at the PhD Students talk competition at the Symposium for Research in Physics and Astronomy, Clemson University, Clemson, SC (USA)
April 2018	Judge at the GRADS poster competition, Clemson University, Clemson, SC (USA)
July 2016-2018	Judge at the 4th, 5th and 6th Annual Summer Undergraduate Research Symposium, Clemson University, Clemson, SC (USA).
April 2016- June 2019	Host of shows at the Clemson Planetarium, Clemson, SC (USA), on a regular schedule.
April 2015	Co-organizer of the Yuri’s night, public astronomy-related event at Leitner Family Observatory and Planetarium, New Haven, CT (USA).
2014-2015	Judge at the annual New Haven Science Fair, New Haven, CT (USA).

Colloquia, seminars, and invited talks in conferences in the last five years

1	*May 2025*	Invited Seminar on VHE blazars at the Columbia University Department of Astronomy. New York (USA).
2	*July 2024*	Galaxies and diffuse gas in large-scale overdense environments at high redshift Workshop. Sexten (Italy). Invited talk.
3	*July 2024*	MAGIC Collaboration Meeting. Online. Invited talk on MAGIC Open Data project.
4	*May 2023*	MAGIC Collaboration Meeting. Online. Invited talk on MAGIC Open Data project.
5	*February 2023*	Workshop “IXPE: la nuova finestra osservativa sul cosmo ad alte energie”. Rome (Italy). Invited talk.
6	*January 2023*	Workshop "Getting Ready To Descend The Slippery Slope Of Multimessanger Cosmological Black Holes Data”. Sexten (Italy). Invited talk.
7	*December 2022*	National Observatory of Athens, Athens (Greece). Invited (virtual) colloquium.
8	*June 2022*	Multiphase AGN Feeding & Feedback II: Linking The Micro To Macro Scales In Galaxies, Groups, And Clusters. Sexten (Italy). Invited talk.
9	*April 2022*	Clemson University, Clemson, SC (USA). Invited colloquium.
10	*February 2022*	Harvard-Smithsonian Center for Astrophysics, Cambridge, MA (USA). Invited high-energy (virtual) seminar. https://www.youtube.com/watch?v=Eei6SFVQIfs
11	*November 2020*	Space Telescope Science Institute. Invited (virtual) talk.
12	*June 2020*	INAF-OAS Bologna, Bologna (Italy). Invited (virtual) talk. https://www.youtube.com/watch?v=6xUZZASb37s

Contributed talks and posters in conferences in the last five years

1	*July 2025 (planned)*	Vasto Accretion Meeting 2025. Vasto (Italy). Contributed talk.
2	*March 2025*	Celebrating 20 years of Swift Discoveries Conference. Firenze (Italy). Contributed talk.
3	*September 2024*	AGN XV Conference. Padova (Italy). Contributed talk.
4	*April 2024*	CTAO Symposium, Bologna, (Italy). Contributed poster and flash talk.
5	*December 2023*	Workshop “Open Science @ INAF”. Rome (Italy). Contributed talk.
6	*June 2023*	Conference “The restless nature of AGN: 10 years later”. Napoli (Italy). Contributed poster.
7	*November 2022*	Exploring the Hot and Energetic Universe: the third scientific conference dedicated to the Athena X-ray Observatory. Barcelona (Spain). Contributed talk.
8	*July 2022*	COSPAR 2022 44th Assembly. Athens (Greece). Contributed talk.
9	*June 2022*	Ten years of High-Energy Universe in Focus: NuSTAR 2022 meeting. Cagliari (Italy). Contributed talk.
10	*January 2022*	Quasars and Galaxies through Cosmic Time 2022 Virtual Conference. Contributed talk. https://www.youtube.com/watch?v=es2_8bXDr58
11	*December 2020*	Supermassive Black Holes Conference. Virtual. Contributed talk.
12	*October 2020*	Young Astronomers on Galactic Nuclei Virtual Conference. Contributed talk.

Schools and workshops

June 2014	Yale Software Bootcamp, New Haven, CT (USA). Training and work hands-on with the Unix shell, git and Python.
June 2014	10th Summer School of Astrostatistics, State College, PA (USA). Training in statistical tools and their application to astrophysical topics. Theoretical lessons and hands-on exercises.
April 2013	9th Chandra/CIAO Workshop, Cambridge, MA (USA). Chandra data reduction and analysis (both imaging and spectroscopy).
December 2013	Virtual Observatory Workshop, Rome (Italy). Work hands-on on several tools for astronomical data analysis (TOPCAT, Aladin, VO).

Technical skills

X-rays

Expert in X-ray data reduction and analysis, for *Chandra* (with CIAO), XMM-*Newton* (with the Science Analysis System) and NuSTAR (HEASoft). Extended knowledge of XSpec and Sherpa. Expert in source detection with wavlet algorithms, and in creation of multi-wavelength catalogs of optical/IR counterparts using ML techniques. Expert in X-ray surveys simulations with SIXTE.

Optical/IR

Observational experience (both in situ and remote) with the multi-slit spectrograph MOSFIRE (Keck) and with the KOSMOS (COSMOS) spectrograph at Kitt Peak (Cerro Tololo). In particular, I have been involved in a multi-year campaign aimed at increasing the spectroscopic and classification completeness of the Third Fermi-LAT Catalog of High-Energy Sources (3FHL), which contains all the sources detected by Fermi-LAT in the 10 GeV-2 TeV band and will thus be an ideal catalog to select CTAO follow-up targets.
Keck MOSFIRE, DEIMOS and KOSMOS/COSMOS optical spectra analysis with IRAF. Expert in spectral energy distribution fitting tools for photometric redshift and galaxy properties computation (e.g., Hyperz, EazY).

Computing and coding skills

- Coding languages: Python (main language), Latex (expert), IDL (good), tcsh (basic), Awk (basic).
- Expert in using astronomical tools like Topcat and DS9.
- Extensive knowledge in data handling of large datasets.

References

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Publications list

149 peer-reviewed articles, 16 of which as first author.
5917 citations, 731 citations to first author papers, h-index: 38 (as of June 25, 2025; statistics taken from the SAO/NASA Astrophysics Data System). ORCID-ID: 0000-0001-5544-0749.

First author publications

1. Marchesi, S., Iuliano, A. et al.: A new look at the extragalactic very high energy sky: Searching for TeV-emitting candidates among the X-ray-bright, non-Fermi-detected blazar population, 2025, 693, 142.
2. Marchesi, S., Eagle, J. et al.: 2FHL J1745.1–3035: A Newly Discovered, Powerful Pulsar Wind Nebula Candidate, 2024, ApJ, 964, 132.
3. Marchesi, S., Mignoli, M. et al.: LBT-MODS spectroscopy of high-redshift candidates in the Chandra J1030 field. A newly discovered z ~ 2.8 large-scale structure, 2023, A&A, 673, 97.
4. Marchesi, S., Zhao, X. et al.: Compton-Thick AGN in the NuSTAR era VIII: A joint NuSTAR-XMM-Newton monitoring of the changing-look Compton-thick AGN NGC 1358, 2022, ApJ, 935, 114.
5. Marchesi, S., Mignoli, M. et al.: Redshift identification of X-ray selected active galactic nuclei in the J1030 field: searching for large-scale structures and high-redshift sources, 2021, A&A, 656, 117.
6. Marchesi, S.: Understanding the black hole-galaxy connection: a multi-X-ray observatory approach, 2021, Memorie della Società Astronomica Italiana, 92, 1.
7. Marchesi, S., Gilli, R. et al.: Mock catalogs for the extragalactic X-ray sky: Simulating AGN surveys with ATHENA and with the AXIS probe, 2020, A&A, 642A, 184.
8. Marchesi, S., Ajello, M. et al.: Compton Thick AGN in the NuSTAR era V: Joint NuSTAR and XMM-Newton spectral analysis of three "soft-Gamma" candidate CT-AGNs in the Swift-BAT 100-month catalog, 2019, ApJ, 882, 162.
9. Marchesi, S., Ajello, M. et al.: Compton Thick AGN in the NuSTAR era III: A systematic study of the torus covering factor, 2019, ApJ, 872, 8.
10. Marchesi, S., Kaur., A., Ajello, M.: Identifying the 3FHL Catalog. II. Results of the KOSMOS Optical Spectroscopy Campaign, 2018, AJ, 156, 212
11. Marchesi, S., Ajello, M. et al.: Compton Thick AGN in the NuSTAR era, 2018, ApJ, 854, 49
12. Marchesi, S., Tremblay, L. et al.: Chandra and NuSTAR follow-up observations of Swift-BAT selected AGN, 2017, ApJ, 848, 53
13. Marchesi, S., Ajello, M. et al.: X-Ray Spectral Properties of Seven Heavily Obscured Seyfert 2 Galaxies, 2017, ApJ, 836, 116
14. Marchesi, S., Lanzuisi, G. et al.: The Chandra COSMOS-Legacy survey: Source X-ray spectral properties, 2016, ApJ, 830, 100
15. Marchesi, S., Civano, F. et al.: The z>3 sample in the Chandra COSMOS Legacy Survey, 2016, ApJ, 827, 150
16. Marchesi, S., Civano, F. et al.: Optical counterparts of the Chandra COSMOS Legacy Survey, 2016, ApJ, 817, 34

Other publications

1. Annuar, A. et al.: The Compton-thick AGN Population and the $N_{\rm H}$ Distribution of Low-mass AGN in our Cosmic Backyard, 2025, arXiv:2506.08527. Accepted for publication in MNRAS.
2. CTAO-LST Collaboration: Detection of the Geminga pulsar at energies down to 20 GeV with the LST-1 of CTAO, 2025, arXiv:2505.21632. Accepted for publication in A&A.

3. Covas, N. et al.: Unveiling faint X-ray AGN populations in the NewAthena era: Insights from cosmological simulations, 2025, arXiv:2504.10731. Accepted for publication in MNRAS.
4. Sanchez-Zaballa, J.M., Buson, S., Marchesi, S. et al.: X-ray Spectral Variability as Probe of Multimessenger Emission in Blazar 5BZB J0630-24064, 2025, arXiv:2504.03457. Accepted for publication in ApJ.
5. Foord, A. et al.: Chandra Discovery of a Candidate Hyperluminous X-Ray Source in MCG+11-11-032, 2025, ApJ, 984, 79.
6. Pal, I., Marchesi, S. et al.: X-ray polarization observations of NGC 2110 with IXPE, 2025, A&A, 697, 182.
7. Sengupta, D. et al.: A multiwavelength characterization of the obscuring medium at the center of NGC 6300, 2025, A&A, 697, 78.
8. Ikeda, H. et al.: The Halo Occupation Distribution Modeling of X-Ray-selected Active Galactic Nuclei at $0.6 < z < 2.6$ in the COSMOS Field, 2025, ApJ, 982, 192.
9. Torres-Albà, N. et al.: Swift-XRT and NuSTAR Monitoring of Obscuration Variability in Mrk 477, 2025, ApJ, 981, 91.
10. CTAO-LST Collaboration: Detection of RS Oph with LST-1 and modelling of its HE/VHE gamma-ray emission, 2025, A&A, 695, 152.
11. Suh, H. et al.: A super-Eddington-accreting black hole ~1.5 Gyr after the Big Bang observed with JWST, 2025, Nature Astronomy, 9, 271.
12. Pizzetti, A., Torres-Albà, N., Marchesi, S. et al.: Hydrogen Column Density Variability in a Sample of Local Compton-thin AGN II, 2025, ApJ, 979, 170.
13. Cox, I., Torres-Albà, N., Marchesi, S. et al.: Chandra Follow-up Observations of Swift-BAT-selected AGNs III, 2025, ApJ, 979, 130.
14. Vito, F. et al.: Intervening nuclear obscuration changing the X-ray look of the $z \approx 6$ quasi-stellar object CFHQS J164121+375520, 2025, A&AL, 694, 16.
15. Boorman, P. et al.: The NuSTAR Local AGN NH Distribution Survey (NuLANDS). I. Toward a Truly Representative Column Density Distribution in the Local Universe, 2025, ApJ, 978, 118.
16. Garcia, J.A. et al.: The high energy X-ray probe (HEX-P): science overview, 2024, Frontiers in Astronomy and Space Sciences, vol 11, id. 1471585.
17. Pal, I. et al.: On the Properties of X-Ray Corona in Seyfert 1 Galaxies, 2024, ApJ, 976, 145.
18. Zhao, X., Marchesi, S. et al.: An X-Ray Significantly Variable, Luminous, Type 2 Quasar at $z = 2.99$ with a Massive Host Galaxy, 2024, ApJ, 975, 24.
19. CTAO-LST Collaboration: A new method of reconstructing images of gamma-ray telescopes applied to the LST-1 of CTAO, 2024, A&A, 691, 328.
20. Peca, A. et al.: Stripe 82-XL: the ~54.8 deg2 and ~18.8 Ms Chandra and XMM-Newton point source catalog and number of counts, 2024, ApJ, 974, 156.
21. CTAO-LST Collaboration: A detailed study of the very-high-energy Crab pulsar emission with the LST-1, 2024, A&A, 690, 167.
22. Greenwell, C.L. et al.: The NuSTAR Serendipitous Survey: The 80 Month Catalog and Source Properties of the High-energy Emitting Active Galactic Nucleus and Quasar Population, 2024, ApJS, 273, 20.
23. Mazzolari, G. et al.: Heavily Obscured AGN detection: a Radio vs X-ray challenge, 2024, A&A, 687, 120.
24. Cappelluti, N., Foord, A., Marchesi, S. et al.: Surveying the Onset and Evolution of Supermassive Black Holes at High-z with AXIS, 2024, Universe, 10, 276.

25. Peca, A., Cappelluti, N., Marchesi, S. et al.: X-ray Redshifts for Obscured Active Galactic Nuclei with AXIS Deep and Intermediate Surveys, 2024, Universe, 10, 245.
26. Fukumura, K. et al.: Dual Role of Accretion Disk Winds as X-ray Obscurers and UV Line Absorbers in AGN, 2024, ApJ, 968, 70.
27. Baldini, P. et al.: Winds of change: the nuclear and galaxy-scale outflows and the X-ray variability of 2MASS 0918+2117, 2024, A&A, 686, 217.
28. Foord, A., et al.: Tracking Supermassive Black Hole Mergers from kpc to sub-pc Scales with AXIS, 2024, Universe, 10, 237.
29. Boorman, P.G. et. al.: The High-Energy X-ray Probe (HEX-P): the circum-nuclear environment of growing supermassive black holes, 2024, FrASS, 11, 1335459.
30. Pfeifle, R.W. et al.: The high energy X-ray probe (HEX-P): the future of hard X-ray dual AGN science, 2024, FrASS, 11, 1304652.
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32. Pouliasis, E. et al.: AGN X-ray luminosity function and absorption function in the Early Universe (3<z<=6), 2024, A&A, 685, 97.
33. Zhao, X. et al.: PEARLS: NuSTAR and XMM-Newton Extragalactic Survey of the JWST North Ecliptic Pole Time-Domain Field II, 2024, ApJ, 965, 188.
34. Civano, F. et al.: The high energy X-ray probe (HEX-P): bringing the cosmic X-ray background into focus, 2024, FrASS, 11, 1340719.
35. Cox, I. et al.: A Simple Method for Predicting NH Variability in Active Galactic Nuclei, 2023, ApJ, 958, 155.
36. Fichet de Clairfontaine, G. et al.: Hadronic Processes at Work in 5BZB J0630-2406, 2023, ApJL, 958, 2.
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42. Silverman, J.D. et al.: Resolving Galactic-scale Obscuration of X-Ray AGNs at z ≳ 1 with COSMOS-Web, 2023, ApJL, 951, 41.
43. Feltre, A. et. Al.: Optical and mid-infrared line emission in nearby Seyfert galaxies, 2023, A&A, 675, 74.
44. Silver, R. et al.: A machine learning algorithm for reliably predicting active galactic nucleus absorbing column densities, 2023, A&A, 675,65.
45. Georgantopoulos, I. et al.: Comparing the host galaxy ages of X-ray selected AGN in COSMOS. Obscured AGN are associated with older galaxies, 2023, A&A, 673, 67.
46. Brienza, M. et al.: AGN feedback in an infant galaxy cluster: LOFAR-Chandra view of the giant FRII radio galaxy J103025+052430 at z = 1.7, 2023, A&A, 672, 179.

47. Peca, A. et al.: On the Cosmic Evolution of AGN Obscuration and the X-Ray Luminosity Function: XMM-Newton and Chandra Spectral Analysis of the 31.3 deg^2 Stripe 82X, 2023, ApJ, 943, 62.
48. Rajagopal, M. et al.: Identifying the 3FHL Catalog. VI. Results of the 2019 Gemini Optical Spectroscopy, 2023, AJ, 165, 42.
49. Pal, I. Et al.: X-ray spectral and timing analysis of the Compton Thick Seyfert 2 galaxy NGC 1068, 2022, MNRAS, 517, 3341.
50. Silver, R. et al.: Compton-thick AGN in the NuSTAR Era. IX. A Joint NuSTAR and XMM-Newton Analysis of Four Local AGN, 2022, ApJ, 940, 148.
51. Joffre, S. et al.: Identifying the 3FHL Catalog. VI. Swift Observations of 3FHL Unassociated Objects with Source Classification via Machine Learning, ApJ 940, 139.
52. D'Amato, Q. et al.: A deep 1.4 GHz survey of the J1030 equatorial field: a new window on radio source populations across cosmic time, 2022, A&A, 668, 133.
53. Gilli, R. et al.: Next Generation X-ray Imaging Surveys, 2022, Memorie della Società Astronomica Italiana, 93, 236.
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56. Ananna, T.A. et al.: Probing the Structure and Evolution of BASS AGN through Eddington Ratios, 2022, ApJL, 939, 13.
57. Matzeu, G. et al.: A New Emulated Monte Carlo Radiative Transfer Disk-Wind Model: X-Ray Accretion Disk-wind Emulator - XRADE, 2022, MNRAS.
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66. Torres-Albà, N., Marchesi, S. et al.: Compton-Thick AGN in the NuSTAR ERA VI: The Observed Compton-thick Fraction in the Local Universe, 2021, ApJ, 922, 252.
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82. Saha, L. et al.: Morphological and Spectral Study of 4FGL J1115.1-6118 in the Region of the Young Massive Stellar Cluster NGC 3603, ApJ, 2020, 897, 131.
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