

CURRICULUM VITAE AND TRACK RECORD OF PI2, ANGELA BONGIORNO

PERSONAL DETAILS

Family name, First name: Bongiorno, Angela
Researcher unique identifier: Orcid ID: 0000-0002-0101-6624
URL for web site: <https://www.oa-roma.inaf.it/bongiorno/>

• Education and key qualifications

2003 – 2007 **PhD**, Astronomy Department, Bologna University, Italy
1998 – 2003 **Master (Magna Cum Laude)**, Astronomy Department, Bologna University, Italy

• Current position

2023 – **Senior researcher at INAF** (National Italian Astrophysical Institute)

• Previous positions

2016 – 2023 Researcher at INAF
2015 – 2016 PostDoc at INAF
2015 Internship as Project Manager at the aerospace company CGS, Rome.
2012 – 2014 AstroFIT Fellow at INAF - Observatory of Rome
2007 – 2012 PostDoc at Max Planck Institute for Extraterrestrial Physics (MPE), Munich

RESEARCH ACHIEVEMENTS AND PEER RECOGNITION

Research achievements

226 refereed paper with 26,034 total citations published in the major journals (including Nature and Science), an **h-index=81** and an **i100-index=64** (n. of papers with > 100 citations) with **~1500 citations/year** (NASA ADS, Oct 2025). Listed among the Top 1000 Female Scientists in the World and in the Top 60 Italian physicists (Research.com).

The ten selected publications have been chosen to showcase the full skill set required to lead CHRONOS Objective 2. Grouped by theme and briefly annotated, they collectively cover 1.) multi-component SED fitting delivering homogeneous host and nuclear parameters; 2.) demographic statistics (luminosity, (pseudo-)Eddington ratio, accretion-rate and host-mass functions) as a function of redshift, luminosity, and mass and 3) scaling relation between SMBH and their host. The works span obscured and unobscured AGN from intermediate redshift to $z > 6$.

10. Saccheo, I., **Bongiorno, A.**, Piconcelli, E., Zappacosta, L., Bischetti, M., D’Odorico, V., Done, C., Temple, M. J., Testa, V., Tortosa, A., Brusa, M., Carniani, S., Civano, F., Comastri, A., Cristiani, S., De Cicco, D., Elvis, M., Fan, X., Feruglio, C., Fiore, F., **Gallerani, S.**, Giallongo, E., Gilli, R., Grazian, A., Guainazzi, M., Haardt, F., Maiolino, R., Menci, N., Miniutti, G., Nicastro, F., Paolillo, M., Puccetti, S., Salvestrini, F., Schneider, R., Tombesi, F., Tripodi, R., Valiante, R., Vallini, L., Vanzella, E., Vietri, G., Vignali, C., Vito, F., Volonteri, M., & La Franca, F. (2025), *[HYPERION: Broad-band X-ray-to-near-infrared emission of quasars in the first billion years of the Universe](#)*, A&A, 693, A157.

9. Saccheo, I., **Bongiorno, A.**, Piconcelli, E., Testa, V., Bischetti, M., Bisogni, S., Bruni, G., Cresci, G., Feruglio, C., Fiore, F., Grazian, A., Luminari, A., Lusso, E., Mainieri, V., Maiolino, R., Marconi, A., **Ricci, F.**, Tombesi, F., Travascio, A., Vietri, G., Vignali, C., Zappacosta, L., & La Franca, F. (2023), *[The WISSH quasars project XI. The mean spectral energy distribution and bolometric corrections of the most luminous quasars](#)*, A&A, 671, A34.

8. Duras, F., **Bongiorno, A.**, **Ricci, F.**, Piconcelli, E., **Shankar, F.**, Lusso, E., Bianchi, S., Fiore, F., Maiolino, R., Marconi, A., Onori, F., Sani, E., Schneider, R., Vignali, C., & La Franca, F. (2020), *[Universal bolometric corrections for active galactic nuclei over seven luminosity decades](#)*, A&A, 636, A73.

7. Duras, F., **Bongiorno, A.**, Piconcelli, E., Bianchi, S., Pappalardo, C., Valiante, R., Bischetti, M., Feruglio, C., Martocchia, S., Schneider, R., Vietri, G., Vignali, C., Zappacosta, L., La Franca, F., & Fiore, F. (2017), *[The WISSH quasars project II: Giant star nurseries in hyper-luminous quasars](#)*, A&A, 604, A67.

6. **Bongiorno, A.**, Merloni, A., Brusa, M., Magnelli, B., Salvato, M., Mignoli, M., Zamorani, G., Fiore, F., Rosario, D., Mainieri, V., Hao, H., Comastri, A., Vignali, C., Balestra, I., Bardelli, S., Berta, S., Civano, F., Kampeczyk, P., Le Floch, E., Lusso, E., Lutz, D., Pozzetti, L., Pozzi, F., Riguccini, L., **Shankar, F.**, &

Silverman, J. (2012), [Accreting supermassive black holes in the COSMOS field and the connection to their host galaxies](#), MNRAS, 427, 3103–3133.

Significance: Together, these studies demonstrate my extensive expertise in SED fitting and multiwavelength analysis of AGN across a wide range of luminosities, masses, and redshifts. These studies encompass diverse source populations: from hyper-luminous quasars at intermediate redshift (WISSH) and the earliest quasars at $z > 6$ (HYPERION), to moderate-luminosity AGN at intermediate z (COSMOS), providing a comprehensive observational view of AGN–galaxy co-evolution. These works, either led by me or carried out by my PhD students under my supervision, collectively showcase my leadership and expertise in SED-based analyses of AGN populations across cosmic time.

The last listed paper in particular, provides one of the first observational definitions of the (pseudo-)Eddington ratio distribution function and laid the groundwork for subsequent bivariate analyses of AGN–galaxy co-evolution.

5. Bongiorno, A., Schulze, A., Merloni, A., Zamorani, G., Ilbert, O., Peng, Y., McCracken, H. J., Menzel, M.-L., Salvato, M., Silverman, J. D., Fiore, F., Mainieri, V., Fotopoulou, S., Pović, M., Berta, S., Brusa, M., Comastri, A., Fadda, D., Koekemoer, A. M., Le Floch, E., Lusso, E., Lutz, D., Pozzi, F., Riguccini, L., Rosario, D., Santini, P., & Vignali, C. (2016), [“AGN host galaxy mass function and the specific accretion rate distribution function at \$0.3 < z < 2.5\$ in COSMOS”](#), A&A, 588, A78.

Significance: In this paper, we provided the first joint determination of the AGN host galaxy mass function and accretion rate distribution as a function of redshift, luminosity, and stellar mass establishing a new bivariate approach to linking black hole growth and galaxy evolution.

4. Merloni, A., Bongiorno, A., Bolzonella, M., Brusa, M., Civano, F., Comastri, A., Elvis, M., Fiore, F., Gilli, R., Hao, H., Jahnke, K., Koekemoer, A. M., Lusso, E., Mainieri, V., Mignoli, M., Miyaji, T., Renzini, A., Salvato, M., Silverman, J., Trump, J., Vignali, C., Zamorani, G., Capak, P., Lilly, S. J., Sanders, D., Taniguchi, Y., Bardelli, S., Carollo, C. M., Caputi, K., Contini, T., Coppa, G., Cucciati, O., de la Torre, S., de Ravel, L., Franzetti, P., Garilli, B., Hasinger, G., Impey, C., Iovino, A., Iwasawa, K., Kampczyk, P., Kneib, J.-P., Knobel, C., Kovač, K., Lamareille, F., Le Borgne, J.-F., Le Brun, V., Le Fèvre, O., Maier, C., Pello, R., Peng, Y., Pérez-Montero, E., Ricciardelli, E., Scodreggio, M., Tanaka, M., Tasca, L. A. M., Tresse, L., Vergani, D., & Zucca, E. (2010), [On the Cosmic Evolution of the Scaling Relations Between Black Holes and Their Host Galaxies: Broad-line AGN in the zCOSMOS Survey](#), ApJ, 708, 137–157.

3. Bongiorno, A., Maiolino, R., Brusa, M., Marconi, A., Piconcelli, E., Lamastra, A., Cano-Díaz, M., Schulze, A., Magnelli, B., Vignali, C., Fiore, F., Menci, N., Cresci, G., La Franca, F., & Merloni, A. (2014), [The MBH– \$M^*\$ relation for X-ray-obscured, red QSOs at \$1.2 < z < 2.6\$](#) , MNRAS, 443, 2077–2091

Significance: These studies map the MBH– M^* scaling relation for both unobscured broad-line AGN and X-ray-obscured, red QSOs over $1 \lesssim z \lesssim 2.6$. Both works develop and apply SED-decomposition to derive robust host-galaxy stellar masses and virial BH masses for type-1 AGN in the first paper and obscured QSOs in the second. They demonstrate my extensive expertise in measuring and interpreting the MBH– M^* relation across obscuration regimes and cosmic time, reinforcing my leadership in AGN–galaxy co-evolution studies.

2. Bongiorno, A., Zamorani, G., Gavignaud, I., Marano, B., Paltani, S., Mathez, G., Møller, P., Picat, J.-P., Cirasuolo, M., Lamareille, F., Bottini, D., Garilli, B., Le Brun, V., Le Fèvre, O., Maccagni, D., Scaramella, R., Scodreggio, M., Tresse, L., Vettolani, G., Zanichelli, A., Adami, C., Arnouts, S., Bardelli, S., Bolzonella, M., Cappi, A., Charlot, S., Ciliegi, P., Contini, T., Foucaud, S., Franzetti, P., Guzzo, L., Ilbert, O., Iovino, A., McCracken, H. J., Marinoni, C., Mazure, A., Meneux, B., Merighi, R., Pellò, R., Pollo, A., Pozzetti, L., Radovich, M., Zucca, E., Hatziminaoglou, E., Polletta, M., Bondi, M., Brinchmann, J., Cucciati, O., de la Torre, S., Gregorini, L., Mellier, Y., Merluzzi, P., Temporin, S., Vergani, D., & Walcher, C. J. (2007), [The VVDS type-1 AGN sample: the faint end of the luminosity function](#), A&A, 472, 443–454.

1. Bongiorno, A., Mignoli, M., Zamorani, G., Lamareille, F., Lanzuisi, G., Miyaji, T., Bolzonella, M., Carollo, C. M., Contini, T., Kneib, J.-P., Le Fèvre, O., Lilly, S. J., Mainieri, V., Renzini, A., Scodreggio, M., Bardelli, S., Brusa, M., Caputi, K., Civano, F., Coppa, G., Cucciati, O., de la Torre, S., de Ravel, L., Franzetti, P., Garilli, B., Halliday, C., Hasinger, G., Koekemoer, A. M., Iovino, A., Kampczyk, P., Knobel, C., Kovač, K., Le Borgne, J.-F., Le Brun, V., Le Fèvre, O., Maier, C., Pello, R., Peng, Y., Pérez-Montero, E., Ricciardelli, E., Salvato, M., Silverman, J., Tanaka, M., Tasca, L. A. M., Tresse, L., Vergani, D., Zucca, E., Abbas, U., Bottini, D., Cappi, A., Cassata, P., Cimatti, A., Guzzo, L., Leauthaud, A., Maccagni, D., Marinoni,

C., McCracken, H. J., Memeo, P., Meneux, B., Oesch, P., Porciani, C., Pozzetti, L., & Scaramella, R. (2010), [*The \[O III\] emission-line luminosity function of optically selected type-2 AGN from zCOSMOS*](#), A&A, 510, A56.

Significance: *These papers constrain the AGN luminosity function for both unobscured/type-1 and obscured/type-2 AGN, as a function of redshift and luminosity. Together they showcase MY expertise in constructing bias-controlled samples luminosity functions.*

PEER RECOGNITION

• Observing and Computing Time Programs

2010 - 2025 **Awarded as PI 6 observing programmes (and more than 50 as Co-I)** at VLT, LBT, ALMA and JWST focusing on SMBH-galaxy co-evolution and AGN feedback.

2023 - 2025 **Awarded as PI over 570,000 core hours of HPC time** (3 proposals).

• Fellowships and Grants

2022 **PI, INAF Mini Grant:** (18k€);

2022 **Co-I, INAF Large Grant:** (200k€);

2021 **Co-I, PRIN INAF:** (55k€);

2020 **Co-I, ASI-INAF project:** (69k€);

2018 **Award, LSST Cadence Hackathon** (2,4k\$);

2012 **Fellowship, INAF AstroFit** (>80k€).

• Organization of International Conferences

2025 **SOC member**, “TUTT2025 WAVES, Women Advancing Visionary Exploration in Science”;

2023 **SOC member**, “Scientific Communication in Astronomy, 2nd Edition”;

2020 **SOC member**, “Scientific Communication in Astronomy”;

2018 **SOC and LOC member**, “Birth, life and fate of massive galaxies and their central beating hearts”;

2017 **SOC member**, “Reality and Myths of AGN feedback” Lorenz center

2015 **SOC and LOC member**, “Science with MOS: towards the ELT Era”

2013 **SOC and LOC member**, “Seeking the Leading Actor in the Cosmic Stage: Galaxies vs BHs”

• Major Collaborations

2022 - present *COSMOS-Web*: **AGN WG member**;

2020 - present *Hyperion*: **member**; **SED fitting analysis responsible**;

2019 - present *Rubin LSST*: **INAF in-kind lead** “AGILE: an End-to-End simulation of AGN, galaxies and stars”; **coordinator** of the “high-z AGN with Machine Learning” project;

2020 - present *Euclid*: **AGN Photometry & SED Fitting tiger team coordinator**, WP9 member;

2016 - present *SHARK*: AGN science **team coordinator**; requirements & AGN cases;

2014 - present *WISSH*: **SED fitting analysis responsible**;

2015 - 2022 *VANDELS*: AGN **WG coordinator**, data reduction, redshift, SED/spectral AGN properties

2014 - 2016 *XXL*: optical IDs/classification of X-ray sources, **SED fitting analysis**;

2007 - 2012 *COSMOS*: **SED fitting** of X-ray-selected AGN, statistical studies;

2007 - 2012 *zCOSMOS*: Spectroscopy, redshifts, **BH mass estimates**;

2003 - 2007 *VVDS*: Data reduction, redshifts, **AGN selection** & spectral properties.

• Editorial, Reviewing and Committee Service

Editorial & Reviewing:

2005 - present **Referee** or major astronomical journals;

2012 - present **External reviewer** for Chilean CONICYT;

2024 - present **External Reviewer** for the Swiss National Science Foundation;

2021 **Lead Editor**, *Advances in Astronomy*.

Observational Panels

2017 - 2018 **ESO TAC Chair**;

2020 Chandra X-ray Observatory **TAC member** (2020);

Academic Committees

2020 - 2022 Member of **3 PhD committees** (University of Naples; University of Turin);

2021 - 2023 Member of **4 Postdoc hiring committees** (INAF Observatory).

Invited/Contributed Talks

2007 - present **17 invited and 30+ contributed** presentations at international conferences and research institutes.

Coordinator roles

2023 - present Euclid Tiger team coordinator (AGN photometry and Physical Parameters)

2022 - present Lead of the INAF LSST in-kind contribution “AGILE: an End-to-End simulation of AGN, galaxies and stars”

2022 - present PI of the project “*Learning Machine Learning techniques to dig up high-z AGN in the LSST*”

2016 - present *SHARK* AGN science team coordinator;

2015 - 2022 VANDELS AGN WG coordinator

ADDITIONAL INFORMATION

• Supervision of Early Career Researchers

2024 - present **PostDoc** working on Euclid AGN and host galaxy properties;

2023 - 2025 **Postdoc** working on LSST AGN empirical mock;

2014 - 2025 **3 PhD students and 4 Master students**.

• Teaching Activities

2018 - present **Lecturer** for the “AGN Physics and Evolution” module in the High Energy Astrophysics course at La Sapienza University

2023 **PhD Lecturer** - “Preparing scientific presentation”, INAF

2021 **PhD Lecturer** - “Preparing talks and seminars”, international school

• Institutional Responsibilities

2020 - 2023 **Representative of RSN1** (Galaxies and Cosmology) in the National Scientific Committee 1 (CSN1) on behalf of the Astronomical Observatory of Rome;

2020 - 2023 **Elected member of the Scientific Council**, INAF- Astronomical Observatory of Rome.

• Public Outreach and Educational Activities

2021 Contributor to the popular **science book** “*Una giornata stellare: manualetto di fatti celesti*”;

2017 - 2022 Creator and performer of the **science show** “*Dancing Universe*” (theatre–music–astrophysics); presented at HACK100 (Trieste, 2022), Bergamo Science Festival (2019), Genoa Science Festival (2018), and European Researchers’ Night (2017, Frascati/INAF–OAR). More: edu.inaf.it/teatro-inaf/dancing-universe

2019 **Co-creator of** “Noi sulla Luna: appunti emozionati di Astrofisica”

2012 - 2022 INAF–OAR **outreach programme**: public talks, guided nights, large events

2017 **Public talk** for the Mediterranea project “*A Dive into the Sky*” Favignana, Italy

2018 - 2022 **School outreach**: “Margherita Hack” Primary School; High schools “Liceo Primo Levi” and “Convitto Nazionale Vittorio Emanuele II”, Rome

2007 - 2008 **Public guide/educator** for night observations, Loiano Observatory

• Career break

2022 - 2023 Maternity leave

Other contributions to the research community

I lead the astrophysical work package of an **interdisciplinary project** on “Network science and explainable machine learning applied across materials, neuroscience, society, and cosmology”.