ELENCO DELLE PUBBLICAZIONI E DELLA TESI DI DOTTORATO PRESENTATE

12 pubblicazioni presentate:

- **Ginolfi, M.**, Jones, G. C., Béthermin, M., et al. (2020) "The ALPINE-ALMA [CII] survey. Circumgalactic medium pollution and gas mixing by tidal stripping in a merging system at z ~ 4.57," A&A, 643, A7
  Nome file: Ginolfi_et_al_2020c.pdf

- **Ginolfi, M.**, Hunt, L. K., Tortora, C., et al. (2020) "Scaling relations and baryonic cycling in local star-forming galaxies. I. The sample," A&A, 638, A4
  Nome file: Ginolfi_et_al_2020b.pdf

- **Ginolfi, M.**, Jones, G. C., Béthermin, M., et al. (2020) "The ALPINE-ALMA [C II] survey: Star-formation-driven outflows and circumgalactic enrichment in the early Universe," A&A, 633, A90
  Nome file: Ginolfi_et_al_2020a.pdf

- **Ginolfi, M.**, Schneider, R., Valiante, R., et al. (2019) "The infrared-luminous progenitors of high-z quasars," MNRAS, 483, 1256-1264
  Nome file: Ginolfi_et_al_2019.pdf

- **Ginolfi, M.**, Maiolino, R., Carniani, S., et al. (2018) "Extended and broad Ly α emission around a BAL quasar at z ~ 5," MNRAS, 476, 2421-2431
  Nome file: Ginolfi_et_al_2018b.pdf

- **Ginolfi, M.**, Graziani, L., Schneider, R., et al. (2018) "Where does galactic dust come from?," MNRAS, 473, 4538-4543
  Nome file: Ginolfi_et_al_2018a.pdf

- **Ginolfi, M.**, Maiolino, R., Nagao, T., et al. (2017) "Molecular gas on large circumgalactic scales at z = 3.47," MNRAS, 468, 3468-3483
  Nome file: Ginolfi_et_al_2017.pdf

- Schaerer, D., **Ginolfi, M.**, et al. (2020) "The ALPINE-ALMA [C II] survey. Little to no evolution in the [C II]-SFR relation over the last 13 Gyr," A&A, 643, A3
  Nome file: Schaerer_Ginolfi_et_al_2020.pdf

- Dessauges-Zavadsky, M., **Ginolfi, M.**, et al. (2020) "The ALPINE-ALMA [C II] survey. Molecular gas budget in the early Universe as traced by [C II]," A&A, 643, A5
  Nome file: Dessauges_Ginolfi_et_al_2020.pdf

- Béthermin, M., Fudamoto, Y., **Ginolfi, M.**, et al. (2020) "The ALPINE-ALMA [CII] survey: Data processing, catalogs, and statistical source properties," A&A, 643, A2
  Nome file: Bethermin_Fudamoto_Ginolfi_et_al_2020.pdf

- Graziani, L., Schneider, R., **Ginolfi, M.**, et al. (2020) "The assembly of dusty galaxies at z ≥ 4: statistical properties," MNRAS, 494, 1071-1088
  Nome file: Graziani_Schneider_Ginolfi_et_al_2020.pdf

- Hunt, L. K., Tortora, C., **Ginolfi, M.**, et al. (2020) "Scaling relations and baryonic cycling in local star-forming galaxies. II. Gas content and star-formation efficiency," A&A, 643, A180
  Nome file: Hunt_Tortora_Ginolfi_2020.pdf

Tesi di Dottorato:

- **Ginolfi, M.**, "The Baryon Cycle driving Galaxy Evolution", Joint research PhD program between Sapienza, Tor Vergata and INAF - PhD in "Astronomy, Astrophysics and Space Science" – XXXI Ciclp
  Nome file: Ginolfi_PhD_thesis.pdf

Luogo e data

Monaco di Baviera (Germania)
12 Agosto 2021

Elenco delle pubblicazioni presentate

1. [A01.pdf] S. Colafrancesco, P. Marchegiani & E. Palladino, “The non-thermal Sunyaev-Zel'dovich effect in clusters of galaxies”, 2003, A&A, 397, 27

2. [A03.pdf] P. Marchegiani, G.C. Perola & S. Colafrancesco, “Testing the cosmic ray content in galaxy clusters”, 2007, A&A, 465, 41

3. [A05.pdf] P. Giommi, S. Colafrancesco, S. Cutini, P. Marchegiani et al., “AGILE and Swift simultaneous observations of the blazar S50716+714 during the bright flare of October 2007”, 2008, A&A, 487, L49

4. [A06.pdf] E. Massaro, P. Giommi, C. Leto, P. Marchegiani, A. Maselli, M. Perri, S. Piranomonte & S. Sclavi, “Roma-BZCAT: A multifrequency catalogue of Blazars”, 2009, A&A, 495, 691

5. [A09.pdf] S. Colafrancesco, P. Marchegiani & P. Giommi, “Disentangling the gamma-ray emission of NGC 1275 and that of the Perseus cluster”, 2010, A&A, 519, A82

6. [A12.pdf] S. Colafrancesco, P. Marchegiani & R. Buonanno, “Untangling the atmosphere of the Bullet cluster with Sunyaev-Zel'dovich effect observations”, 2011, A&A, 527, L1

7. [A21.pdf] Marchegiani, P.; Colafrancesco, S., “Is the radio emission in the Bullet cluster due to dark matter annihilation?”, 2015, MNRAS, 452, 1328

8. [A25.pdf] Marchegiani, P.; Colafrancesco, S., “The role of Dark Matter sub-halos in the non-thermal emission of galaxy clusters”, 2016, JCAP, 11, 033

9. [A29.pdf] P. Marchegiani, S. Colafrancesco, N.F. Khanye, “The role of dark matter annihilation in the radio emission of the galaxy cluster A520”, 2019, MNRAS, 483, 2795

10. [A30.pdf] P. Marchegiani, “Probing the low-energy spectrum of non-thermal electrons in galaxy clusters with soft gamma ray observations”, 2019, Ap&SS, 364, 41

11. [A31.pdf] P. Marchegiani, “Effect of turbulent reacceleration on electrons produced by dark matter annihilation in the Coma cluster”, 2019, MNRAS, 488, 1401

12. [A34.pdf] P. Marchegiani, “Thermal and non-thermal Sunyaev-Zel'dovich effect in the cavities of the galaxy cluster MS 0735.6+7421: the role of the thermal density in the cavity”, 2021, MNRAS, 503, 4183

13. [tesi.pdf] Tesi di Dottorato: “Il contenuto non-termico degli ammassi di galassie”, 2006, Università di Roma Tre

Lista delle 12 pubblicazioni

1. Duras F., Bongiorno A., **Ricci F.**, Piconcelli E., Shankar F., Lusso E., Bianchi S., et al., 2020, AA, 636, A73. “Universal bolometric corrections for active galactic nuclei over seven luminosity decades” doi:10.1051/0004-6361/201936817

2. Shankar F., Allevato V., Bernardi M., Marsden C., Lapi A., Menci N., Grylls P. J., Krumpe M., Zanisi L., **Ricci F.**, et al. 2020, NatAs, 4, 282. “Constraining black hole-galaxy scaling relations and radiative efficiency from galaxy clustering” doi:10.1038/s41550-019-0949-y

3. Shankar F., Bernardi M., Richardson K., Marsden C., Sheth R. K., Allevato V., Graziani L., Mezcua M., **Ricci F.**, et al. 2019, MNRAS, 485, 1278S. “Black hole scaling relations of active and quiescent galaxies: Addressing selection effects and constraining virial factors” doi:10.1093/mnras/stz376

4. **Ricci F.**, Lovisari L., Kraft R. P., Massaro F., Paggi A., Liuzzo E., Tremblay G., et al., 2018, ApJ, 867, 35. “Stormy Weather in 3C 196.1: Nuclear Outbursts and Merger Events Shape the Environment of the Hybrid Radio Galaxy 3C 196.1” doi:10.3847/1538-4357/aae487

5. Stuardi C., Missaglia V., Massaro F., **Ricci F.**, Liuzzo E., Paggi A., Kraft R. P., et al., 2018, ApJS, 235, 32.”The 3CR Chandra Snapshot Survey: Extragalactic Radio Sources with Redshifts between 1 and 1.5” doi:10.3847/1538-4365/aaafcf

6. **Ricci F.**, Marchesi S., Shankar F., La Franca F., Civano F., 2017, MNRAS, 465, 1915. “Constraining the UV emissivity of AGN throughout cosmic time via X-ray surveys” doi:10.1093/mnras/stw2909

7. **Ricci F.**, La Franca F., Onori F., Bianchi S., 2017, AA, 598, A51. “Novel calibrations of virial black hole mass estimators in active galaxies based on X-ray luminosity and optical/near-infrared emission lines” doi:10.1051/0004- 6361/201629380

8. **Ricci F.**, La Franca F., Marconi A., Onori F., Shankar F., Schneider R., Sani E., et al., 2017, MNRAS, 471, L41. “Detection of faint broad emission lines in type 2 AGNs - III. On the M_{BH}-σ_* relation of type 2 AGNs” doi:10.1093/mnrasl/slx103

9. Onori F., **Ricci F.**, La Franca F., Bianchi S., Bongiorno A., Brusa M., Fiore F., et al., 2017, MNRAS, 468, L97. “Detection of faint broad emission lines in type 2 AGN - II. On the measurement of the black hole mass of type 2 AGN and the unified model” doi:10.1093/mnrasl/slx03

10. Bischetti M., Piconcelli E., Vietri G., Bongiorno A., Fiore F., Sani E., Marconi A., Duras F., Zappacosta L., Brusa M., Comastri A., Cresci G., Feruglio C., Giallongo E., La Franca F., Mainieri V., Mannucci F., Martocchia S., **Ricci F**., et al. 2017, A&A, 598A, 122B. “The WISSH quasars project. I. Powerful ionised outflows in hyper-luminous quasars” doi:10.1051/0004-6361/201629301

11. Álvarez Crespo N., Masetti N., **Ricci F.**, Landoni M., Patiño-Álvarez V., Massaro F., et al. 2016, A J, 151, 32A. “Optical Spectroscopic Observations of Gamma-ray Blazar Candidates. V. TNG, KPNO, and OAN Observations of Blazar Candidates of Uncertain Type in the Northern Hemisphere” doi:10.3847/0004-6256/151/2/32

12. **Ricci F.**, Massaro F., Landoni M., D’Abrusco R., Milisavljevic D., Stern D., Masetti N., et al., 2015, AJ, 149, 160. “Optical Spectroscopic Observations of Gamma-ray Blazar Candidates. IV. Results of the 2014 Follow-up Campaign” doi:10.1088/0004-6256/149/5/160

Tesi di dottorato:
Titolo: “The role of AGN in galaxy evolution”
Autrice: Ricci F.
Relatore: La Franca F., co-relatori: Massaro F., Shankar F.

Luogo e data: Roma 4/08/2021

Curriculum vitae of Dr. Michele Ginolfi

Personal Information

FIRST NAME / SURNAME Michele Ginolfi

ADDRESS ——

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EMAIL ——

WEBSITE ——

NATIONALITY ——

DATE OF BIRTH ——

Work & Research Experience

NOV 2020 - PRESENT

ESO Fellow

European Southern Observatory (Garching bei München, Germany)

Independent Research Fellowship

Research topics:

- Observations (e.g., VLT, ALMA) and theoretical studies (numerical/semi-analytical models) of galaxy evolution across the cosmic time;
- gas flows and baryon cycle in the early Universe;
- AGN/star-formation-driven feedback;
- evolutionary link between IR-luminous galaxies and quasars;
- formation mechanisms of the "hot dust-obscured galaxies" (Hot-DOGs);
- interstellar gas & dust properties of local and distant galaxies.

Functional duties:

- Scheduling, Execution and preliminary data reduction of observations with the APEX Telescope;
- Assistance in the development of exposure time calculators for future first light instruments at the Extremely Large Telescope (ELT).

OCT 2018 - OCT 2020

Postdoctoral Researcher

The Astronomy Department, University of Geneva (Switzerland)

Group Leader: Prof. Daniel Schaerer, University of Geneva

- multi-wavelength studies of distant galaxies (ALPINE, an *ALMA* Large Program to study the gas and dust properties of 4<z<6 galaxies);
- star formation-driven outflows and circumgalactic enrichment at high-redshift *(ALMA)*;
- AGN-feedback and its impact on circumgalactic scales *(VLT/MUSE)*;
- scaling relations and baryonic cycling in local galaxies *(large surveys, analytical models)*.

NOV 2016 - OCT 2018

Graduate Research Student

National Institute of Astrophysics (INAF), Observatory of Rome (Italy)

Project supervisor: Prof. R. Schneider, Sapienza University of Rome.

- chemical evolution of galaxies, including dust *(numerical pipeline GAMESH)*;
- evolutionary link between ULIRGs and quasars *(semi-analytical code GAMETE)*;
- local fundamental scaling relations.

NOV 2015 - NOV 2016

Graduate Research Student

Cavendish Laboratory & KICC, University of Cambridge (UK)

Project supervisor: Prof. R. Maiolino, University of Cambridge.

- mechanisms of galaxy growth *(ALMA, HST, VLT/SINFONI)*;
- Lyman-alpha Nebulae around quasars *(VLT/MUSE)*.

Education

NOV 2015 - NOV 2018 PhD in "Astronomy, Astrophysics and Space Science"
Joint Research Program between Sapienza University of Rome, University of Tor Vergata and INAF, Rome (Italy)
PhD thesis title: "The Baryon Cycle driving Galaxy Evolution"
Advisor: Prof. R. Schneider; co-advisor: Prof. R. Maiolino
Final grade: Excellent cum laude

OCT 2013 - JUL 2015 Master of Science, "Astronomy and Astrophysics"
Sapienza University of Rome, Rome (Italy)
Thesis: "The Interstellar Medium of High Redshift Galaxies"
Supervisor: Prof. R. Schneider
Final Grade: 110/110 cum laude

SEP 2010 - OCT 2013 Bachelor of Science, "Physics and Astrophysics"
Sapienza University of Rome, Rome (Italy)
Thesis: "The Sunyaev-Zel'dovich Effect"
Supervisor: Dr. L. Lamagna
Final Grade: 110/110

JUL 2010 Diploma, "Liceo Classico", Istituto Pacifici e De Magistris, Sezze (Italy)
Final Grade: 100/100

Advanced Schools & Training (selected)

DEC 2017 ALMA Data Processing Workshop,
Institute of Astrophysics and Space Sciences, Lisbon (Portugal)

MAR 2017 School of High Performance Computing with Modern Fortran,
CINECA, Rome (Italy)

JUN 2016 Visiting Student - "The Cold Universe" Program,
The Kavli Institute for Theoretical Physics (KITP) at the University of California, Santa Barbara (UCSB), CA, (USA)

FEB 2016 ALMA Data Handling Workshop,
Italian node of the European ALMA Regional Centre, Bologna (Italy)

Awards & Fellowships

DEC 2019 ESO Fellowship at the European Southern Observatory (Munich).

JAN 2020 Newton-Kavli Junior Fellowship at the Kavli Institute for Cosmology, University of Cambridge (Declined).

APR 2019 MERAC Funding and Travel Award - Project: "The Baryon Cycle driving Galaxy Evolution (BaCyGE)"

OCT 2018 Postdoctoral Fellowship at the Observatory of Geneva (UNIGE), in the group "Starbursts in the Universe" (group leader: Prof. D. Schaerer).

NOV 2017 Research Grant "Progetto Piccolo", Sapienza University of Rome - "The gas and dust in and out of galaxies", in collaboration with Prof. R. Schneider.

NOV 2016 Research Grant "Assegno di Ricerca" (2 years), INAF-OAR.

NOV 2015 Studentship (1 year), Cavendish Laboratory, University of Cambridge.

FEB 2015 IMPRS Graduate Student Research Fellowship, Max Planck Institute for Extraterrestrial Physics (MPE), Munich (Declined).

JAN 2013, JAN 2014 Merit-based Scholarships "Borsa di collaborazione studenti", Department of Physics, Sapienza University of Rome (2 x).

Ongoing Large Collaborations

- **ALPINE**, an ALMA Large Program that observed [CII] and FIR-continuum in more than hundred main-sequence galaxies at z~4-6. I had a co-leading role in the "Data Team". In particular I was responsible for the extraction/ distribution of [CII] proprieties & data-products, therefore actively contributing to more than 20 published papers (see List of Publications below), and several other ongoing works.

- **MOONS**, WG-1: ISM and star-forming galaxies.

Teaching Activities and Mentoring

Lectures and Laboratories

OCT 2019- OCT 2020 • Lab. Assistant in the MSc class **"Galaxies and cosmology - an introduction"** (Prof. D. Schaerer), University of Geneva.

JUN 2018 • Lectures on **"Mechanisms of Galaxy Growth and Evolution"** and **"Chemical Enrichment in Galaxies"** - MSc class "Stellar Astrophysics" (Prof. R. Schneider), Sapienza University of Rome.

2013 • Lab. Assistant in the class **"Laboratory of Astrophysics"** for undergraduate students (Prof. C. Rossi), Sapienza University of Rome.

Supervision/Mentoring of students

2021 - PRESENT • Co-supervisor (principal supervisor: Dr. Gergo Popping) of the IMPRS PhD Student Ivanna Langan, at ESO.
Project: "Resolving the gas and dust in high-redshift galaxies"

JUN 2021- AUG 2021 • Supervisor (co-advisors: Dr. Paola Andreani and Dr. Gergo Popping) of the ESO Summer Research student Louise Kluge, at ESO.
Project: "The mysterious [CII] emission in the interstellar medium of galaxies"

2021 - PRESENT • Fellow Mentor of PhD Student Stephen Molyneux (ESO) and M.Sc. Student Aaron Beyer (ESO).

Observing Programs Awarded

2021 - **Principal Investigator** of the accepted **ALMA Cycle 8** Proposal:
" ALMA & MUSE synergy to explore the impact of AGN-feedback on the circumgalactic gas".

2021 - **Principal Investigator** of the **ESO P108 MUSE** Program:
"MUSE exploration of the multi-phase circumgalactic gas fuelling a massive distant galaxy in a protocluster".

2021 - **Principal Investigator** of the **ESO P106 MUSE** Program:
"How to make a Hot-DOG - Studying the mass assembly of the most luminous galaxies in the Universe with MUSE".

2019 - **Principal Investigator** of the accepted **ALMA Cycle 7** Proposal:
"ALMA & MUSE synergy to explore the impact of AGN-feedback on the circumgalactic gas".

2018 - **Principal Investigator** of the **ESO P102 MUSE** Program:
"Searching for the Hot-DOGs ingredients: a MUSE look at the gas reservoir surrounding hyper-luminous, dust-obscured, outflow-dominated z>3 QSOs".

- Co-Investigator of more than 20 **HST**, **ALMA**, **VLT/MUSE**, **NOEMA**, **CHANDRA** and **VLA** accepted programs. In many of these proposal I had a key role in the designing the observing strategy and verifying the technical feasibility.

Talks & Seminars

- Leiden (The Netherlands), "EAS 2021", June 2021, contributed talk *[virtual]*
- Munich (Germany), *ESO Informal Discussion*, June 2021, invited talk *[virtual]*
- Rome (Italy), Sapienza, May 2021, invited colloquium *[virtual]*
- London (UK), *Royal Astronomical Society (RAS),* "Quasars & Galaxies on the Edge of Cosmic Reionisation", February 2021, contributed talk *[virtual]*
- Cambridge (UK), "Epoch of Galaxy Quenching", Sep 2020, contributed talk *[virtual]*;
- Munich (Germany), ESO, Jul 2020, invited talk *[virtual]*;
- Leiden (The Netherlands), "EAS 2020", Jun 2020, contributed talk *[virtual]*;
- Geneva (Switzerland), UniGE+EPFL, Apr 2020, invited colloquium *[virtual]*;
- Sesto (Italy), Workshop: "The Interstellar medium of high redshift galaxies", Jan 2020, invited talk;
- Cagliari (Italy), "ALMA 2019: Science Results and Cross-Facility Synergies", Oct 2019, invited talk;
- Zurich (Switzerland), ETH, Oct 2019, invited colloquium;
- Rome (Italy), *Accademia dei Lincei*, "Extremely Big Eyes on the Early Universe", Sept 2019, contributed talk;
- Bologna (Italy), *UNIBO/INAF*, "Views on the ISM in galaxies in the ALMA era", Sept 2019, contributed talk;
- Lyon (France), "EWASS 2019", Jun 2019, two contributed talks;
- Corfu' (Greece), *IAASARS*, "Supermassive Black Holes: Environment and Evolution", Jun 2019, contributed talk;

- Stockholm (Sweden), *NORDITA*, "Zoom-In and Out: From the ISM to the Large Scale Structure of the Universe", Jun 2019, contributed talk;
- Florence (Italy), *Observatory of Arcetri*, "ESKAPE HI", Nov 2018, contributed talk;
- Pisa (Italy), *Scuola Normale Superiore*, Nov 2018, invited colloquium
- Bern (Switzerland) - *ISSI*, "*STARFORM* meeting", Oct 2018, contributed talk
- Durham (UK), *Durham University*, "Are AGN special?", Aug 2018, contributed talk;
- Noordwijk (The Netherlands), *ESA*, "The Near, The Far, and The In-between: JWST/EUCLID Synergy", Jul 2018, contributed talk;
- Rome (Italy), *Sapienza*, "Colloquium at the Department of Physics", May 2018, invited colloquium;
- Liverpool (UK), "EWASS 2018", Apr 2018, contributed talk ;
- Florence (Italy), *Observatory of Arcetri*, "Galaxy evolution and environment", Nov 2017, contributed talk;
- Munich (Germany), *ESO*, "The galaxy ecosystem, flow of baryons through galaxies", Jul 2017, contributed talk;
- Durham (UK), *Durham University*, "What Matter(s) Around Galaxies", Jun 2017, contributed talk;
- Paris (France), *École Normale Supérieure*, "Galaxy Evolution Across Time", Jun 2017, contributed talk;
- Cambridge (UK) - *IOA*, Sackler Lecture Theatre Colloquium, Sept 2016, invited colloquium;
- Santarcangelo di Romagna (Italy), "The fate of gas flows in galaxies", Sept 2016, contributed talk;
- Santa Barbara (USA), *KITP/UCSB*, "The Cold Universe", Jun 2016, contributed talk;
- Pisa (Italy), *Scuola Normale Superiore*, "DAVID-X, Recomputing the Early Universe", Oct 2015, contributed talk.

Professional Service and Organisation of Science Activities

- 2020/present – Co-founder and organiser of the Galaxy Evolution Coffee at ESO.
- 2020/present – Organizer of the KES series at ESO.
- 2020/present – Fellow Representative at ESO
- March 2021 – Member of the Selection Committee for the ESO Summer School 2021.
- March 2021 – Chair of an Hypatia Colloquium session.
- July 2021 – Organisation of lectures for the ESO Summer School 2021.
- May 2021 – Chair of an Hypatia Colloquium session.
- May 2021 – Speaker at the ESO Students Session: "How to deal with interviews for postdoc positions?".
- 2017/2018 – Organizer of the Extragalactic weekly astro-ph meetings at INAF-OAR (over the PhD).

- I participated to the dual-anonymous proposal review in ALMA Cycle 8 (reviewed 20 proposals).
- External reviewer of proposals for observing time at the James Clerk Maxwell Telescope, and the Palomar Observatory/200-inch Telescope.
- Reviewer for ApJ, MNRAS, A&A (~3 papers reviewed per year, since 2017).

Relevant Technical Skills

- Extensive experience in reducing/analysing ALMA, MUSE and HST data.
- Astronomical software/tools: ALMA Science Pipeline, ESO-VLT Instrument Pipeline (esorex, reflex), CASA, CubEx (package for MUSE data-cubes), CIAO, SAO Image DS9, QFitsView, TOPCAT, Glue.
- Contributor Developer of *GAMESH* (PI & Leading Developer: Dr. L. Graziani - see Graziani+17, Ginolfi+18), a numerical pipeline for galaxy evolution.
- Developer of codes for accessing data-products in simulations with GADGET-like formats and merger-trees reconstruction algorithms.
- Advanced statistical tools on large astronomical datasets (e.g., PCA, Machine Learning-based Clustering).
- Image processing with Machine Learning, using OpenCV, TensorFlow (developer of softwares for writing / painting using eye-tracking; see https://sites.google.com/view/micheleginolfi/other-projects).

Outreach Experience (selected)

MAR 2021 I attended a "Science Communication Training", organised by ESO Supernova.

FEB 2021 Invited talk *[virtual]* on "Galassie in evoluzione: il ciclo cosmico dei barioni", Associazione Astronomiamo.

FEB 2021 I became Honorary Fellow of the association Astronomiamo (https://www.astronomiamo.it/Home), which promotes a direct link between professional astronomers and the general public. I will be delivering for Astronomiamo a mini-course on Galaxy Evolution for the general public in January 2022.

MAR 2021 Invited talk *[virtual]* on "L'Universo bello e complesso: stelle, galassie, buchi neri e tanto altro...", during "Giornata della Scienza 2021", at Istituto Comprensivo "Don Camagni" in Brugherio, Italy.

JAN 2019 Invited speaker at Liceo Statale Leonardo Da Vinci - Terracina (LT Italy), "Progetto Lezioni di fisica moderna".

NOV 2018 Science communicator (subject: "Galaxies") at "La Cité des Métiers", one-week exhibition at Palexpo, Geneva (Switzerland).

JUN 2018 Invited speaker at the Science Event "Incontro di Astrofisica", Latina Scalo (Italy).

Language Skills

English (fluent), Italian (native), French (basic), German (basic) .

List of Published Papers

First-author publications

- **Ginolfi, M.**, Jones, G. C., Béthermin, M., et al. (2020) "The ALPINE-ALMA [CII] survey. Circumgalactic medium pollution and gas mixing by tidal stripping in a merging system at z ~ 4.57," A&A, 643, A7
- **Ginolfi, M.**, Hunt, L. K., Tortora, C., et al. (2020) "Scaling relations and baryonic cycling in local star-forming galaxies. I. The sample," A&A, 638, A4
- **Ginolfi, M.**, Jones, G. C., Béthermin, M., et al. (2020) "The ALPINE-ALMA [C II] survey: Star-formation-driven outflows and circumgalactic enrichment in the early Universe," A&A, 633, A90
- **Ginolfi, M.**, Schneider, R., Valiante, R., et al. (2019) "The infrared-luminous progenitors of high-z quasars," MNRAS, 483, 1256-1264
- **Ginolfi, M.**, Maiolino, R., Carniani, S., et al. (2018) "Extended and broad Ly α emission around a BAL quasar at z ~ 5," MNRAS, 476, 2421-2431
- **Ginolfi, M.**, Graziani, L., Schneider, R., et al. (2018) "Where does galactic dust come from?," MNRAS, 473, 4538-4543
- **Ginolfi, M.**, Maiolino, R., Nagao, T., et al. (2017) "Molecular gas on large circumgalactic scales at z = 3.47," MNRAS, 468, 3468-3483

Co-author publications

(Second-author publications)

- Dessauges-Zavadsky, M., **Ginolfi, M.**, et al. (2020) "The ALPINE-ALMA [C II] survey. Molecular gas budget in the early Universe as traced by [C II]," A&A, 643, A5
- Schaerer, D., **Ginolfi, M.**, et al. (2020) "The ALPINE-ALMA [C II] survey. Little to no evolution in the [C II]-SFR relation over the last 13 Gyr," A&A, 643, A3

(Third- and fourth- author publications)

- Hunt, L. K., Tortora, C., **Ginolfi, M.**, et al. (2020) "Scaling relations and baryonic cycling in local star-forming galaxies. II. Gas content and star-formation efficiency," A&A, 643, A180
- Béthermin, M., Fudamoto, Y., **Ginolfi, M.**, et al. (2020) "The ALPINE-ALMA [CII] survey: Data processing, catalogs, and statistical source properties," A&A, 643, A2
- Marassi, S., Graziani, L., **Ginolfi, M.**, et al. (2019) "Evolution of dwarf galaxies hosting GW150914-like events," MNRAS, 484, 3219-3232
- Marsden, C., Shankar, F., **Ginolfi, M.**, et al. (2020) "The case for the fundamental M-sigma," FrP, 8, 61
- Graziani, L., Schneider, R., **Ginolfi, M.**, et al. (2020) "The assembly of dusty galaxies at z ≥ 4: statistical properties," MNRAS, 494, 1071-1088
- Béthermin, M., Dessauges-Zavadsky, M., Faisst, A. L., **Ginolfi, M.**, et al. (2020) "The ALPINE-ALMA [CII] Survey: Exploring the Dark Side of Normal Galaxies at the End of Reionisation," Msngr, 180, 31-36

- Jones, G. C., Béthermin, M., Fudamoto, Y., **Ginolfi, M.**, et al. (2020) "The ALPINE-ALMA [C II] survey: a triple merger at z ˜ 4.56," MNRAS, 491, L18-L23
- Fujimoto, S., Silverman, J. D., Bethermin, M., **Ginolfi, M.**, et al. (2020) "The ALPINE-ALMA [C II] Survey: Size of Individual Star-forming Galaxies at z = 4-6 and Their Extended Halo Structure," ApJ, 900, 1
- Cassata, P., Morselli, L., Faisst, A., **Ginolfi, M.**, et al. (2020) "The ALPINE-ALMA [CII] survey. Small Lyα-[CII] velocity offsets in main-sequence galaxies at 4.4 < z < 6," A&A, 643, A6
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- Romano, M., Cassata, P., Morselli, L., et al. (2021) "The ALPINE-ALMA [CII] survey: The contribution of major mergers to the galaxy mass assembly at z~5," arXiv, arXiv:2107.10856, A&A, in press
- Pozzi, F., Calura, F., Fudamoto, Y., et al. (2021) "The ALPINE-ALMA [CII] survey: Dust mass budget in the early Universe," arXiv, arXiv:2105.14789, A&A, in press
- Khusanova, Y., Bethermin, M., Le Fèvre, O., et al. (2021) "The ALPINE-ALMA [CII] survey. Obscured star formation rate density and main sequence of star-forming galaxies at z > 4," A&A, 649, A152
- Loiacono, F., Decarli, R., Gruppioni, C., et al. (2021) "The ALPINE-ALMA [C II] survey. Luminosity function of serendipitous [C II] line emitters at z ~ 5," A&A, 646, A76
- Yan, L., Sajina, A., Loiacono, F., et al. (2020) "The ALPINE-ALMA [C II] Survey: [C II] 158 μm Emission Line Luminosity Functions at z ~ 4-6," ApJ, 905, 147
- Gruppioni, C., Béthermin, M., Loiacono, F., et al. (2020) "The ALPINE-ALMA [CII] survey. The nature, luminosity function, and star formation history of dusty galaxies up to z ≃ 6," A&A, 643, A8
- Fudamoto, Y., Oesch, P. A., Faisst, A., et al. (2020) "The ALPINE-ALMA [CII] survey. Dust attenuation properties and obscured star formation at z ~ 4.4-5.8," A&A, 643, A4
- Le Fèvre, O., Béthermin, M., Faisst, A., et al. (2020) "The ALPINE-ALMA [CII] survey. Survey strategy, observations, and sample properties of 118 star-forming galaxies at 4 < z < 6," A&A, 643, A1
- Cirasuolo, M., Fairley, A., Rees, P., et al. (2020) "MOONS: The New Multi-Object Spectrograph for the VLT," Msngr, 180, 10-17
- Faisst, A. L., Schaerer, D., Lemaux, B. C., et al. (2020) "The ALPINE-ALMA [C II] Survey: Multiwavelength Ancillary Data and Basic Physical Measurements," ApJS, 247, 61
- Travascio, A., Zappacosta, L., Cantalupo, S., et al. (2020) "The WISSH quasars project. VIII. Outflows and metals in the circum-galactic medium around the hyper-luminous z ~ 3.6 quasar J1538+08," A&A, 635, A157
- Romano, M., Cassata, P., Morselli, L., et al. (2020) "The ALPINE-ALMA [C II] Survey: on the nature of an extremely obscured serendipitous galaxy," MNRAS, 496, 875-887
- Guo, Y., Maiolino, R., Jiang, L., et al. (2020) "Metal Enrichment in the Circumgalactic Medium and Lyα Halos around Quasars at z ~ 3," ApJ, 898, 26

Papers in preparation

- *Title*: "Quasar buffet at cosmic noon: cosmic assembly revealed in a hot-dust obscured hyper-luminous galaxy"
  Authors: **Michele Ginolfi**, Enrico Piconcelli , Luca Zappacosta , Roberto Maiolino , Andrea Travascio , Laura Pentericci , Sebastiano Cantalupo , Fabrizio Arrigoni Battaia , Stefano Carniani , Kirsten Knudsen , Carlos De Breuck , Rafaella Schneider , Luca Graziani , Gareth Jones , Rosa Valiante , Peter Laursen , Anne Verhamme , Vincenzo Mainieri , Flora Stanley
  Status of the paper: In preparation. To be submitted to Nature.

- *Title*: "The ALPINE-ALMA [CII] survey: measuring outflows from the blueshift of stacked rest-frame UV lines"
  Authors: **Michele Ginolfi** + ALPINE team.
  *Status of the paper**:*** In preparation. To be submitted to A&A.

I am also currently collaborating on 5 ongoing / submitted manuscripts. In one of these I had a major role:

- *Title*: "Scaling relations and baryonic cycling in local star-forming galaxies. III. Outflows, effective yields and metal loading factors"
  Authors: Crescenzo Tortora, Leslie Hunt & **Michele Ginolfi**
  Status of the paper: re-submitted to A&A after the first round of review.

Luogo e data

Monaco di Baviera
12 Agosto 2021

Curriculum scientifico e professionale
Paolo Marchegiani

Carriera Accademica

Studi

- Laurea in Fisica (indirizzo Astrofisica e Fisica dello Spazio)
  Università di Roma La Sapienza, 28/02/2002 (votazione 110/110)
  Tesi di Laurea: "L'effetto SZ non-termico negli ammassi di galassie: un approccio completo"
  Relatore interno: F. Melchiorri; Relatore esterno: S. Colafrancesco

- Dottorato di Ricerca in Fisica
  Università di Roma Tre, 10/02/2006
  Tesi di Dottorato: "Il contenuto non-termico degli ammassi di galassie"
  Tutore interno: G.C. Perola; Tutore esterno: S. Colafrancesco

Contratti di ricerca

- 01/04/2007 – 30/06/2008
  Borsa di studio per collaborazione all'attività di ricerca:
  "Studio dei processi di emissione di alta energia in ammassi di galassie, radiogalassie ed altre sorgenti extragalattiche nell'ambito dei programmi scientifici della missione GLAST per astronomia a raggi gamma"
  Dipartimento di Fisica dell'Università La Sapienza di Roma
  Responsabile scientifico: E. Massaro

- 01/01/2009 – 31/12/2010
  Assegno di collaborazione all'attività di ricerca:
  "L'effetto Sunyaev Zeldovich: teoria e misure di precisione"
  Dipartimento di Fisica dell'Università La Sapienza di Roma
  Responsabile scientifico: P. De Bernardis

- 01/12/2011 – 30/11/2012
  Assegno di ricerca Postdoc (art.22 legge 240/2010):
  "Studio spettrale di effetto SZ termico, non-termico e relativistico in strutture cosmiche su grande scala e applicazioni allo spettrometro differenziale di Millimetron".
  Osservatorio Astronomico di Roma
  Responsabile scientifico: R. Maiolino

- 01/09/2013 – 31/08/2017
  Postdoctoral Fellowship
  University of the Witwatersrand (Johannesburg)
  Hosting Professor: S. Colafrancesco

- 01/10/2017 – 31/03/2020
  Researcher in Astrophysics (fixed term)
  University of the Witwatersrand

- 01/05/2020 – 30/04/2021
  Assegno di ricerca categoria A tipologia 1 (art.22 legge 240/2010):
  “L’effetto Sunyaev-Zel’dovich non-termico negli ammassi di galassie”
  Universita’ Sapienza di Roma
  Responsabile scientifico: P. De Bernardis

Attività scientifica

Incarichi di ricerca

- 2020 – in corso
  Honorary Researcher presso University of the Witwatersrand

Riconoscimenti

- 2021
  Rating C3 (established researcher) ottenuto dalla NRF (National Research Foundation, Sudafrica)

Responsabilita’ di ricerca

- 2019
  PI della proposta di osservazione con SALT: “Unraveling the nature of the unidentified gamma-ray sources via optical spectroscopy: hunting new blazars”

- 2020 – in corso
  Punto di contatto per il progetto “Cluster Properties Catalog” nell’ambito della collaborazione MeerKAT Legacy Galaxy Cluster Survey

Partecipazione a gruppi di ricerca e associazioni scientifiche

- 2006 – in corso
  Membro del gruppo di ricerca per la compilazione del catalogo di blazar Roma-BZCAT

- 2016 – 2020
  Membro della SAIP (Southern African Institute of Physics), e registrato come Certified Professional Physicist

- 2019 – in corso
  Membro della H.E.S.S. collaboration

- 2020 – in corso
  Membro della collaborazione MeerKAT Legacy Galaxy Cluster Survey

Finanziamenti ottenuti

- 2019
  Research start-up grant (Rand 30000) da Faculty of Science of the University of the Witwatersrand per il progetto “Identifying new blazars sources through optical spectroscopic observations and revision of the BZCAT catalog”

- 2021
  Incentive funding for rated researcher (Rand 50000) da NRF (National Research Foundation, Sudafrica)

Attivita’ di reviewer o referee

- 2006 – presente
  Referee per riviste scientifiche internazionali (The Astrophysical Journal, Science, MNRAS)

- 2017
  Reviewer di un “Vidi grant proposal” per Netherlands Organisation for Scientific Research

Indicatori bibliografici (aggiornati al 08/08/2021)

- Web of Science
  Numero pubblicazioni: 42
  Citazioni: 1285
  H-index: 13

- Scopus
  Numero pubblicazioni: 55
  Citazioni: 1407
  H-index: 15

- ADS
  Numero pubblicazioni: 75
  Citazioni: 1778
  H-index: 16

Pubblicazioni e output scientifici

Pubblicazioni in riviste con referee

A1. S. Colafrancesco, P. Marchegiani & E. Palladino, “The non-thermal Sunyaev-Zel'dovich effect in clusters of galaxies”, 2003, A&A, 397, 27

A2. S. Colafrancesco, P. Marchegiani & G.C. Perola, “Where does the hard X-ray diffuse emission in clusters of galaxies come from?”, 2005, A&A, 443, 1

A3. P. Marchegiani, G.C. Perola & S. Colafrancesco, “Testing the cosmic ray content in galaxy clusters”, 2007, A&A, 465, 41

A4. S. Colafrancesco & P. Marchegiani, “Warming rays in cluster cool cores”, 2008, A&A, 484, 51

A5. P. Giommi, S. Colafrancesco, S. Cutini, P. Marchegiani et al., “AGILE and Swift simultaneous observations of the blazar S50716+714 during the bright flare of October 2007”, 2008, A&A, 487, L49

A6. E. Massaro, P. Giommi, C. Leto, P. Marchegiani, A. Maselli, M. Perri, S. Piranomonte & S. Sclavi, “Roma-BZCAT: A multifrequency catalogue of Blazars”, 2009, A&A, 495, 691

A7. S. Colafrancesco & P.Marchegiani, “On the inverse Compton scattering interpretation of the hard X-ray excesses in galaxy clusters: the case of Ophiuchus”, 2009, A&A, 502, 711

A8. A.A. Abdo et al., “The Spectral Energy Distribution of Fermi Bright Blazars”, 2010, ApJ, 716, 30

A9. S. Colafrancesco, P. Marchegiani & P. Giommi, “Disentangling the gamma-ray emission of NGC 1275 and that of the Perseus cluster”, 2010, A&A, 519, A82

A10. S. Colafrancesco & P. Marchegiani, “On the ability of the spectroscopic Sunyaev-Zeldovich effect measurements to determine the temperature structure of galaxy clusters”, 2010, A&A, 520, A31

A11. S. Colafrancesco, R. Lieu, P. Marchegiani, M. Pato, L. Pieri & R. Buonanno, “Dark matter interpretation of the origin of non-thermal phenomena in galaxy clusters”, 2011, A&A, 527, A80

A12. S. Colafrancesco, P. Marchegiani & R. Buonanno, “Untangling the atmosphere of the Bullet cluster with Sunyaev-Zel'dovich effect observations”, 2011, A&A, 527, L1

A13. S. Colafrancesco & P. Marchegiani, “The energetics of giant radio galaxy lobes from inverse Compton scattering observations”, 2011, A&A, 535, A108

A14. P. de Bernardis, S. Colafrancesco, G. D'Alessandro, L. Lamagna, P. Marchegiani, S. Masi & A. Schillaci, “Low-resolution Sunyaev-Zel'dovich spectroscopy and estimates of cluster parameters”, 2012, A&A, 538, A86

A15. S. Colafrancesco, P. Marchegiani, P. de Bernardis & S. Masi, “A multi-frequency study of the SZE in giant radio galaxies”, 2013, A&A, 550, A92

A16. Colafrancesco, S.; Marchegiani, P., “Probing photon decay with the Sunyaev-Zel'dovich effect”, 2014, A&A, 562, L2

A17. Colafrancesco, S.; Emritte, M. S.; Mhlahlo, N.; Marchegiani, P., “Multifrequency constraints on the nonthermal pressure in galaxy clusters”, 2014, A&A, 566, A42

A18. Colafrancesco, S.; Marchegiani, P.; Beck, G., “Evolution of dark matter halos and their radio emissions”, 2015, JCAP, 02, 032

A19. Massaro, E.; Maselli, A.; Leto, C.; Marchegiani, P.; Perri, M.; Giommi, P.; Piranomonte, S., “The 5th edition of the Roma-BZCAT. A short presentation”, 2015, Ap&SS, 357, 75

A20. Colafrancesco, S.; Emritte, M. S.; Marchegiani, P., “The impact of non-Planckian effects on cosmological radio backgrounds”, 2015, JCAP, 05, 006

A21. Marchegiani, P.; Colafrancesco, S., “Is the radio emission in the Bullet cluster due to dark matter annihilation?”, 2015, MNRAS, 452, 1328

A22. Colafrancesco, S.; Mhlahlo, N.; Jarrett, T.; Oozeer, N.; Marchegiani, P., “Discovery of a suspected giant radio galaxy with the KAT-7 array”, 2016, MNRAS, 456,512

A23. Emritte, M.S.; Colafrancesco, S.; Marchegiani, P., “Polarization of the Sunyaev-Zel'dovich effect: relativistic imprint of thermal and non-thermal plasma”, 2016, JCAP, 07, 031

A24. Colafrancesco, S.; Marchegiani, P.; Emritte, M. S., “Probing the physics and history of cosmic reionization with the Sunyaev-Zel'dovich Effect”, 2016, A&A, 595, A21

A25. Marchegiani, P.; Colafrancesco, S., “The role of Dark Matter sub-halos in the non-thermal emission of galaxy clusters”, 2016, JCAP, 11, 033

A26. Marchegiani, P.; Colafrancesco, S., “Effect of the non-thermal Sunyaev–Zel’dovich effect on the temperature determination of galaxy clusters”, 2017, MNRAS, 469, 4644

A27. Colafrancesco, S.; Marchegiani, P.; Paulo, C.M., “The correlation between radio power and Mach number for radio relics in galaxy clusters”, 2017, MNRAS, 471, 4747

A28. Malu, Siddharth; Datta, Abhirup; Colafrancesco, Sergio; Marchegiani, Paolo; Subrahmanyan, Ravi; Narasimha, D.; Wieringa, Mark H., “Relativistic inverse Compton scattering of photons from the early universe”, 2017, Scientific Reports, Volume 7, id. 16918

A29. P. Marchegiani, S. Colafrancesco, N.F. Khanye, “The role of dark matter annihilation in the radio emission of the galaxy cluster A520”, 2019, MNRAS, 483, 2795

A30. P. Marchegiani, “Probing the low-energy spectrum of non-thermal electrons in galaxy clusters with soft gamma ray observations”, 2019, Ap&SS, 364, 41

A31. P. Marchegiani, “Effect of turbulent reacceleration on electrons produced by dark matter annihilation in the Coma cluster”, 2019, MNRAS, 488, 1401

A32. C. Button, P. Marchegiani, “The application of the adiabatic compression scenario to the radio relic in the galaxy cluster Abell 3411-3412”, 2020, MNRAS, 499, 864

A33. Takalana C. M.; Marchegiani P.; Beck G.; Colafrancesco S., “Simulated differential observations of the Sunyaev-Zel'dovich effect: probing the dark ages and epoch of reionization”, 2020, Ap&SS, 365, 188

A34. P. Marchegiani, “Thermal and non-thermal Sunyaev-Zel'dovich effect in the cavities of the galaxy cluster MS 0735.6+7421: the role of the thermal density in the cavity”, 2021, MNRAS, 503, 4183

Pubblicazioni in proceedings di conferenze con referee

B1. S. Colafrancesco, P. Marchegiani & E. Palladino, “Non-thermal vs. thermal SZ effect in galaxy clusters”, Proceedings of the 2K1BC Workshop EXPERIMENTAL COSMOLOGY AT MILLIMETRE WAVELENGHTS, Breuil-Cervinia; 2002, AIPC, 616, 316

B2. E. Palladino, S. Colafrancesco & P. Marchegiani, “Spatial features of non-thermal SZ effect in galaxy clusters”, Proceedings of the 2K1BC Workshop EXPERIMENTAL COSMOLOGY AT MILLIMETRE WAVELENGHTS, Breuil-Cervinia; 2002, AIPC, 616, 363

B3. E. Massaro, P. Giommi, C. Leto, P. Marchegiani, A. Maselli, M. Perri, S. Piranomonte, S. Sclavi, “Roma-BZCAT: a multifrequency blazar catalogue”, 2008, MmSAI, 79, 262

B4. E. Massaro, P. Giommi, C. Leto, P. Marchegiani, A. Maselli, M. Perri, S. Piranomonte, S. Sclavi, “Roma BZCAT: a Multifrequency Blazar catalogue”, Proceedings of the Workshop on Blazar Variability across the Electromagnetic Spectrum. April 22-25, 2008 Palaiseau, France, PoS(BLAZARS2008), 048

B5. L. Ferrari et al., “Spectroscopic Active Galaxies and Clusters Explorer”, Proceedings of THE THIRTEENTH INTERNATIONAL WORKSHOP ON LOW TEMPERATURE DETECTORS-LTD13, 2009, AIPC, 1185, 483

B6. P. De Bernardis et al., “SAGACE: the Spectroscopic Active Galaxies And Clusters Explorer”, Proceedings of the 12th Marcel Grossman Meeting, 2010, Paris 12-18 July 2009, page 2133 (2012)

B7. A. Coppolecchia et al., “OLIMPO: A 4-bands imaging spectro-photometer for balloon-borne observations of the Sunyaev-Zel'dovich effect”, 2014, in Proceedings of the International School of Physics "Enrico Fermi"Volume 186, 2014, Pages 257-264

B8. Grainge, Keith; Borgani, Stefano; Colafrancesco, Sergio; Ferrari, Chiara; Scaife, Anna; Marchegiani, Paolo; Emritte, S.; Weller, J., “Galaxy Cluster Science with the Sunyaev-Zel'dovich Effect”, 2014, in Proceedings of 'Advancing Astrophysics with the Square Kilometre Array', PoS(AASKA14)170

B9. Colafrancesco, Sergio; Regis, Marco; Marchegiani, Paolo; Beck, Geoff; Beck, Rainer; Zechlin, Hannes; Lobanov, Andrei; Horns, Dieter, “Probing the nature of Dark Matter with the SKA”, 2014, in Proceedings of 'Advancing Astrophysics with the Square Kilometre Array', PoS(AASKA14)100

B10. Sergio Colafrancesco, Paolo Marchegiani, M. Shehzad Emritte, “Cosmology with galaxy clusters: studying the Dark Ages and the Epoch of Reionization in the SKA era”, 2014, in Proceedings of 'Advancing Astrophysics with the Square Kilometre Array', PoS(AASKA14) 034

B11. Colafrancesco, S.; Marchegiani, P., “High-Energy Phenomena in Galaxy Clusters”, 2015, in Proceedings of ‘XI Multifrequency Behaviour of High Energy Cosmic Sources Workshop”, PoS(MULTIF15) 012

B12. Mekuria R.R., Colafrancesco S., Faltenbacher A., Marchegiani P., “Multi-wavelength emission from dark matter annihilation processes in galaxy clusters using cosmological simulations”, in Proceedings of ‘High Energy Astrophysics in Southern Africa 2016’, POS(HEASA 2016) 009

B13. Paulo C.M., Colafrancesco S., Marchegiani P., “The origin of radio relics in galaxy clusters: a combined gamma and radio wavelength analysis”, in Proceedings of ‘High Energy Astrophysics in Southern Africa 2016’, POS(HEASA 2016) 012

B14. P. Marchegiani and S. Colafrancesco, “Studying the dark matter annihilation in galaxy clusters through radio and gravitational lensing measures”, in Proceedings of ‘High Energy Astrophysics in Southern Africa 2017’, POS(HEASA 2017) 006

B15. C.M. Takalana, S. Colafrancesco and P. Marchegiani, “Analysis of differential observations of the cosmological radio background: studying the SZE-21cm”, in Proceedings of ‘High Energy Astrophysics in Southern Africa 2017’, POS(HEASA 2017) 008

B16. C.M. Takalana, S. Colafrancesco and P. Marchegiani, “Differential observation techniques for the SZE-21cm and low frequency radio emission”, in Proceedings of ‘FAST-MeerKAT and SKA Pathfinders Synergies’, 2018, p.138

B17. C.M. Takalana, S. Colafrancesco and P. Marchegiani, “Differential Observation Techniques for the SZE-21cm and radio sources”, in Proceedings of ‘High Energy Astrophysics in Southern Africa 2018’, POS(HEASA 2018) 006

B18. P. Marchegiani, S. Colafrancesco, N.F. Khanye, “Possible Dark Matter annihilation in the galaxy cluster A520”, in Proceedings of ‘High Energy Astrophysics in Southern Africa 2018’, POS(HEASA 2018) 030

Tesi e monografie

C1. P. Marchegiani, Tesi di Laurea in Fisica: “L'effetto SZ non-termico negli ammassi di galassie: un approccio completo”, 2002, Università La Sapienza di Roma

C2. P.Marchegiani, Tesi di Dottorato di Ricerca in Fisica: “Il contenuto non-termico degli ammassi di galassie”, 2006, Università di Roma Tre

C3. E. Massaro, P. Giommi, C. Leto, P. Marchegiani, A. Maselli, M. Perri, S. Piranomonte & S. Sclavi, “Multifrequency catalogue of BLAZARS”, 2008, Vol. II (6h-12h), Aracne, Roma

C4. E. Massaro, P. Giommi, C. Leto, P. Marchegiani, A. Maselli, M. Perri, & S. Piranomonte, “Multifrequency catalogue of BLAZARS”, 2011, 3rd Edition, Aracne, Roma

C5. E. Massaro, A. Maselli, C. Leto, P. Marchegiani , M. Perri, P. Giommi, S. Piranomonte, “The Roma BZCAT - 5th edition, Multi-frequency Catalogue of Blazars, Edition 5.0.0”, 2015, Aracne, Roma, ISBN 978-88-548-7918-8

Pubblicazioni senza referee

D1. E. Massaro, P. Giommi, C. Leto, P. Marchegiani, A. Maselli, M. Perri, S. Piranomonte & S. Sclavi, “The 2nd edition of the Roma-BZCAT Multi-frequency Catalogue of Blazars”, arXiv:1006.0922

D2. C. Armitage-Caplan et al., “COrE (Cosmic Origins Explorer) A White Paper”, arXiv:1102.2181

Pubblicazioni come membro della H.E.S.S. collaboration

E1. H.E.S.S. collaboration, “Detection of very-high-energy γ-ray emission from the colliding wind binary η Car with H.E.S.S.”, 2020, A&A, 635, A167

E2. H.E.S.S. collaboration, “Very high energy γ-ray emission from two blazars of unknown redshift and upper limits on their distance”, 2020, MNRAS, 494, 5590

E3. H.E.S.S. collaboration, “Probing the Magnetic Field in the GW170817 Outflow Using H.E.S.S. Observations”, 2020, ApJ, 894, L16

E4. H.E.S.S. collaboration, “Search for dark matter signals towards a selection of recently detected DES dwarf galaxy satellites of the Milky Way with H.E.S.S.”, 2020, PhRvD, 102, 062001

E5. H.E.S.S. collaboration, “An extreme particle accelerator in the Galactic plane: H.E.S.S. J1826-130”, 2020, A&A, 644, A112

E6. H.E.S.S. Collaboration, MAGIC Collaboration, et al., “H.E.S.S. and MAGIC observations of a sudden cessation of a very-high-energy γ-ray flare in PKS 1510–089 in May 2016”, 2021, A&A, 684, A23

E7. EHT MWL Science Working Group, “Broadband Multi-wavelength Properties of M87 during the 2017 Event Horizon Telescope Campaign”, 2021, ApJ, 911, L11

E8. H.E.S.S. Collaboration, “Search for dark matter annihilation in the Wolf-Lundmark-Melotte dwarf irregular galaxy with H.E.S.S.”, 2021, Phys. Rev. D, 103, 102002

E9. H.E.S.S. Collaboration, “Revealing x-ray and gamma ray temporal and spectral similarities in the GRB 190829A afterglow”, 2021, Science, 372, 1081

E10. H.E.S.S. Collaboration, “Search for dark matter annihilation signals from unidentified Fermi-LAT objects with H.E.S.S”, 2021, ApJ, in press, eprint arXiv:2106.00551

E11. H.E.S.S. Collaboration, “Evidence of 100 TeV γ-ray emission from HESS J1702-420: A new PeVatron candidate”, 2021, A&A, in press, eprint arXiv:2106.06405

E12. H.E.S.S. Collaboration, “LMC N132D: A mature supernova remnant with a power-law gamma-ray spectrum extending beyond 8 TeV”, 2021, A&A, in press, eprint arXiv:2108.02015

Seminari e presentazioni a conferenze

- “Studying extragalactic extended sources via the Sunyaev Zeldovich effect”
  Osservatorio Astronomico di Roma, Monte Porzio Catone, 05/04/2012

- “Probing photon decay with the SZ effect: the role of SKA”
  The South African Square Kilometre Array Project - 2013 Postgraduate Bursary Conference (Stellenbosch, 25-29 November 2013)

- “Probing the Dark Ages and the Epoch of Reionization with the Sunyaev-Zel’dovich effect of the cosmological 21 cm line: the role of SKA”
  The South African Square Kilometre Array Project - 2014 Postgraduate Bursary Conference (Stellenbosch, 04-08 December 2014)

- “Is the radio emission in the Bullet cluster due to Dark Matter annihilation?”
  The South African Square Kilometre Array Project - 2015 Postgraduate Bursary Conference (Stellenbosch, 30 November - 04 December 2015)

- “The role of Dark Matter sub-halos in the non-thermal emission of galaxy clusters”
  The South African Square Kilometre Array Project - 2016 Postgraduate Bursary Conference (Cape Town, 28 November - 02 December 2016)

- “Studying the Dark Matter annihilation in Galaxy Clusters through radio and gravitational lensing measures”
  High Energy Astrophysics in Southern Africa 2017 (Johannesburg, 3-6 October 2017)

- “Possible Dark Matter annihilation in the galaxy cluster A520”
  High Energy Astrophysics in Southern Africa 2018 (Parys, 1-3 August 2018)

- “Sunyaev Zel'dovich effect in galaxy clusters cavities: thermal or non-thermal origin?”
  Observing the millimeter Universe with the NIKA2 camera (online, 28 June – 2 July 2021)

Partecipazioni a scuole, congressi e workshop

- Scuola Nazionale di Astrofisica, VII ciclo (2003-2004), I corso, "Le galassie del gruppo locale. I telescopi di nuova generazione", Marciana Marina - Isola d'Elba (LI), 11-17 May 2003

- 5th AGILE Science Workshop, "The galactic Center and other Cosmic Accelerators", Roma, 2 February 2005

- Italian Workshop: Astrofisica Gamma dallo Spazio - AGILE e GLAST, 2 - 3 July 2007, ASI Science Data Center, ESA – ESRIN, Frascati

- 7th Agile Meeting – The Bright Gamma-Ray Sky, 29 September – 1 October 2009, ASI Science Data Center, ESA – ESRIN, Frascati

- Workshop Nazionale “New Hard X-ray Mission”, 12 - 13 November 2009, ASI Science Data Center, ESA - ESRIN, Frascati

- First National Meeting on Science and Technology with SKA: the Italian Pathway to SKA, Rome, 19-20 June 2012

- The South African Square Kilometre Array Project - 2013 Postgraduate Bursary Conference (Stellenbosch, 25-29 November 2013)

- The South African Square Kilometre Array Project - 2014 Postgraduate Bursary Conference (Stellenbosch, 04-08 December 2014)

- The South African Square Kilometre Array Project - 2015 Postgraduate Bursary Conference (Stellenbosch, 30 November - 04 December 2015)

- The South African Square Kilometre Array Project - 2016 Postgraduate Bursary Conference (Cape Town, 28 November - 02 December 2016)

- High Energy Astrophysics in Southern Africa 2017 (Johannesburg, 3-6 October 2017)
- SARAO 2017 Postgraduate Bursary Conference (Cape Town, 27 November-1 December 2017)
- High Energy Astrophysics in Southern Africa 2018 (Parys, 1-3 August 2018)
- SARAO 2018 Postgraduate Bursary Conference (Port Elizabeth, 26 - 29 November 2018)
- SARAO 2020 Postgraduate Bursary Conference (online, 30 November – 5 December 2020)
- RGCW Meeting: A new window on the radio emission from galaxies, clusters and cosmic web (online, 8-11 March 2021)
- Ninth International Fermi Symposium (online, 12 – 17 April 2021)
- Observing the millimeter Universe with the NIKA2 camera (online, 28 June – 2 July 2021)

Breve descrizione dell'attivita' di ricerca

I principali campi della mia attività di ricerca scientifica riguardano l'astrofisica extragalattica, la cosmologia, la fisica della materia oscura, e la fisica dei plasmi nelle strutture cosmiche, con particolare riferimento allo studio multi-banda (dal radio ai raggi gamma) dei fenomeni termici e non-termici in ammassi di galassie, blazar, radiogalassie e altre sorgenti extragalattiche. Nel corso della mia attività scientifica conduco un lavoro teorico, interpretativo e predittivo, facendo uso di modelli analitici, semi-analitici e numerici, e di tecniche di analisi statistica. Per questo scopo uso anche codici software da me prodotti, scritti prevalentemente in linguaggio IDL, e dati provenienti dalla letteratura, da archivi pubblici, e da osservazioni dedicate.

Temi di ricerca:

- Fenomeni non-termici in ammassi di galassie
  - modelli per l'accelerazione e la produzione di particelle relativistiche nell'Intra Cluster Medium (ICM)
  - meccanismi di emissione non-termica
  - proprieta' delle emissioni radio diffuse (radio aloni, relitti e mini-aloni)
  - vincoli su emissioni non-termiche di alta energia (raggi X e gamma)
  - effetti di feedback dei raggi cosmici sul gas dell'ICM
  - annichilazione di materia oscura
  - proprieta' statistiche e correlazioni tra emissioni non-termiche e parametri dell'ammasso
- Effetto Sunyaev-Zel'dovich in ammassi di galassie
  - Teoria relativisticamente corretta dell'effetto SZ termico e non-termico
  - Proprieta' spettrali e spaziali dell'effetto SZ
  - Effetto SZ in ammassi isotermi e non isotermi
  - Utilizzo dell'effetto SZ per l'estrazioni di informazioni astrofisiche sull'ammasso
  - Effetto SZ per uno spettro di background modificato da effetti astrofisici o cosmologici
  - Effetto SZ in bolle di plasma relativistico negli ammassi di galassie

- Materia oscura in ammassi di galassie e altre sorgenti extragalattiche
    - Processi di annichilazione di materia oscura
    - Studio dei vincoli sulla proprieta' della materia oscura a partire dalle proprieta' delle emissioni non-termiche negli ammassi di galassie
    - Studio delle proprieta' spettrali e spaziali dell'emissione di materia oscura in ammassi di galassie a partire dal confronto delle mappe X, radio e di lensing gravitazionale dell'ammasso
    - Materia oscura in aloni di diverse dimensioni (ammassi di galassie, galassie, galassie nane)

- Radiogalassie
    - Emissioni non-termiche nei lobi delle radiogalassie
    - Modelli per l'emissione radio
    - Effetto SZ non-termico nei lobi delle radiogalassie e suo uso come sonda per determinare il contenuto energetico degli elettroni non-termici
    - Interazione di getti e lobi con il materiale circostante in ammassi di galassie
    - Possibile associazione di radiogalassie con emissioni non-termiche diffuse in ammassi di galassie

- Blazar
    - Caratterizzazione e catalogazione di blazar a partire dalle loro proprieta' multifrequenza
    - Preparazione di osservazioni di spettroscopia ottica di candidati blazar
    - Modelli di emissione a singola zona (Synchrotron self Compton) e a zone multiple
    - Modelli di emissione in oggetti con getto disallineato

Attività didattica

Corsi universitari

- A.A. 2009/2010
  Supporto alla didattica per il corso di “Laboratorio di Meccanica” del primo anno del corso di Laurea Triennale in Fisica presso l'Università Sapienza di Roma

- 2018
  Co-lecturer per il corso “Physical Cosmology” per Honours Students presso University of the Witwatersrand

Supervisione di studenti

- Undergraduate students:
  - 2018: Tutorato di uno studente per il corso “Physics III” presso University of the Witwatersrand
  - 2019: Tutorato di tre studenti per il corso “Physics III” presso University of the Witwatersrand

- Postgraduate students:
  - 2013 – 2015: A. Tailor (PhD; co-supervisor) - University of the Witwatersrand
  - 2018 – 2019: C.M. Paulo (PhD) - University of the Witwatersrand
  - 2018 – 2020: C. Button (MSc) - University of the Witwatersrand
  - 2018 – 2020: C.M. Takalana (PhD) - University of the Witwatersrand
  - 2018 – in corso: N.F. Khanye (PhD) - University of the Witwatersrand

- Aiuto nella supervisione di studenti senza incarico formale:
  2013 – 2018: G. Beck(PhD), M.S. Emritte (MSc/PhD), R. Mekuria (PhD), C.M. Paulo (PhD), C.M. Takalana (MSc), N.F. Khanye (PhD), C. Button (MSc) presso University of the Witwatersrand

PERSONAL INFORMATION

Federica Ricci

RESEARCH INTEREST

Research topics: AGN/galaxy coevolution, BH-host scaling relations, AGN feedback, AGN evolution, radio-loud AGN, multi-wavelength AGN surveys

WORK EXPERIENCE

12/2020 - 2022 — Associata INAF-OAS (Bologna)

10/2020 - today — Postdoc (Assegnista di Ricerca)

Dipartimento di Fisica e Astronomia, Università di Bologna, via Gobetti 93/2, 40129, Bologna, Italy

- "Probing the effect of BH winds on AGN host galaxies gas reservoirs" inside the BLACKOUT project . Data reduction, analysis and interpretation of ALMA data of high-z AGN with outflows in ionised phase and evidence of depleted molecular gas and of molecular outflows.
  - One paper as 1st author in preparation.
- Sponsor: Prof. M. Brusa

03/2018 - 09/2020 — Fondecyt postdoctoral fellow

Instituto de Astrofísica and Centro de Astroingeniería, Facultad de Física, Pontificia Universidad Católica de Chile, Casilla 306, Santiago 22, Chile

- Unveil the black hole mass – host galaxy connection in obscured accreting supermassive black holes, 3-year project.
  - One paper as 1st author submitted (BASS XXIX, to appear in ApJS special issue);
  - One paper as 1st author in preparation;
  - CoI of other BASS papers (5 published or in press + 3 submitted);
  - One paper as 3rd author published (A&A, Duras+20 *Universal bolometric corrections for active galactic nuclei over seven luminosity decades*)
  - PI of followup NIR spectroscopic proposals and local expert observer for the BASS collaboration
- Sponsor: Prof. E. Treister

07/2017 – 10/2017 — Postdoc

Harvard-Smithsonian Astrophysical Observatory, Cambridge, Boston, USA

- Multi-wavelength study (radio, optical, X-ray) on multiple scales (from the nucleus up to ~500 kpc) of kinetic feedback in action in 3C 196.1, a hybrid morphology radio galaxy, the BCG (brightest cluster galaxy) of a galaxy cluster.
  - One 1st author paper published on a international refereed journal (ApJ, Ricci+18: *Stormy weather in 3C 196.1*)
  - CoI of other 3C Chandra snapshot survey papers (4 published)
- Collaborators: Dr. R. Kraft, Dr. L. Lovisari & Dr. W. Forman
- Sponsor: Dr. W. Forman, Prof. F. Massaro

06/2017

Visiting Postdoc

Istituto di Radioastronomia (IRA), Bologna, Italy

- Data reduction and analysis of VLA observations of 3CR radiogalaxies observed in the Chandra snapshot survey.
  - One paper published on an international refereed journal (ApJS, Stuardi+18 *The 3CR Chandra Snapshot Survey: Extragalactic Radio Sources with Redshifts between 1 and 1.5*).
- Collaborators: Dr. E. Liuzzo & Prof. F. Massaro

03/2017 – 05/2017

Unpaid Postdoctoral Associate

European Southern Observatory (ESO), Santiago, Chile

- Black hole – host connection in local obscured AGN. Morphological bulge-disc decomposition of mid- infrared emission of local samples of hard X-ray selected AGN employing GALFIT.
  - One 1st author paper published on international refereed journal (MNRAS Letter, Ricci+17c *Detection of faint broad emission lines in type 2 AGNs - III*)
  - One as 2nd author published on international refereed journal (Sani+18 *NGC1275*)
- Collaborators: Dr. E. Sani & Prof. F. La Franca
- Sponsor: Dr. E. Sani

03/2017 – 02/2018

Unpaid Postdoctoral Associate

Dipartimento di Matematica e Fisica, Universitá degli studi Roma Tre, Roma, Italia

- Spectroscopic data reduction and analysis of optical and near-infrared spectra of AGN
- Sponsor: Prof. F. La Franca

EDUCATION AND TRAINING

01/2014-02/2017

PhD in Physics - XXIX cycle

Dipartimento di Matematica e Fisica, Universitá degli studi Roma Tre, Roma, Italia

- Thesis: The role of AGN in galaxy evolution
  - Three 1st autor papers published as part of my PhD on international refereed journals (AJ Ricci+15, A&A Ricci+17a *Novel calibrations of virial black hole mass estimators in active galaxies based on X–ray luminosity and optical/NIR emission lines* and MNRAS Ricci+17b)
  - One 2nd author paper as part of my PhD thesis published (MNRAS letter, Onori+17b *Detection of faint broad emission lines in type 2 AGN: II*)
  - One 3rd author paper as part of my PhD thesis published on international refereed journal (MNRAS Onori+17a *Detection of faint broad emission lines in type 2 AGN: I*)
  - One 3rd author paper related to the topic (but not presented in my PhD thesis) published on a refereed journal (La Franca+16 *Detection of Faint BLR Components in the Starburst/Seyfert Galaxy NGC 6221*)
  - PI of one NIR spectroscopic proposal
- Supervisor: Prof. F. La Franca, Co-supervisors: Prof. F. Shankar & Prof. F. Massaro

03/2015-04/2015

Visiting student

Department of Physics and Astronomy, University of Southampton, Southampton, UK

- The goal of the appointment was to perform a statistical demographic study of hard X-ray selected AGN using deep Chandra and COSMOS Legacy data. These X-ray samples, matched also with optical and UV selected AGN samples, were used to determine the evolution of the luminosity function of the ionizing AGN population up to z = 6, to constrain the role of the AGN in the hydrogen reionization.
  - One 1st author refereed paper (as part of my PhD thesis) has been published on an international journal (MNRAS, Ricci+17b *Constraining the UV emissivity of AGN*).
- Collaborators: Prof. S. Shankar & Dr. F. Civano

08/2014-10/2014

Visiting student

Harvard-Smithsonian Astrophysical Observatory, Cambridge, Boston, USA

- The goal of the project was the spectroscopic classification of unidentified gamma-ray sources observed by the Fermi satellite.
  - This collaboration (still ongoing) has led to a 1st author refereed paper as part of my PhD thesis (AJ, Ricci+15 *Optical spectroscopic observations of gamma-ray blazar candidates IV*)
  - Series of papers as CoI (13 published),
  - PI of optical spectroscopic followup proposals, expert observer for several nights
- Collaborators: Dr. R. D'Abrusco & Prof. F. Massaro
- Sponsor: G. Fabbiano, Prof. F. Massaro

2011-2013

Master of Science in Physics

Dipartimento di Matematica e Fisica, Universitá degli studi Roma Tre, Roma, Italia

- Thesis: The measure of the AGN2 black hole mass with NIR spectroscopy
  - the work done during the master thesis ended up in one of the first publications done during my PhD with one paper published on MNRAS as 3rd author (La Franca+15 *Extending Virial Black Hole Mass Estimates to Low-Luminosity or Obscured AGN*)
- Supervisor: Prof. F. La Franca
- Grade: 110/110 cum laude

2008-2011

Bachelor of Science in Physics

Dipartimento di Matematica e Fisica, Universitá degli studi Roma Tre, Roma, Italia

- Supervisor: Prof. F. La Franca
- Grade: 110/110 cum laude

Mother tongue: Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C2	C1	C2
Spanish	C1	C1	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Communication skills

- Excellent communication skills gained through several invited seminars as speaker and university lectures
- Excellent capacity of working in teams gained through participation to scientific collaborations

Organisational / managerial skills

- Excellent skills in setting and respecting deadlines, setting and meeting objectives, creating programs work, work in groups, prepare scientific documentation, identify and solve problems
- Excellent networking capacity
- Excellent work flexibility gained through several research periods spent abroad during the PhD and postdoc
- Independent work (2018-2020 PI of a 3-year research project)
- Independent fund management (responsible of my FONDECYT fellowship budget for collaboration, traveling, conferences etc.)
- Leader of the near-infrared spectroscopic data reduction and analysis of the BASS survey (Swift/BAT AGN Spectroscopic Survey, www.bass-survey.com)

Driving licence: B

TEACHING

Didattica integrativa A.A. 2020-2021

- 20 hours as tutor for supporting the course “Laboratorio di Astrofisica” 6CFU offered during the Bachelor course in Physics of the Department of Mathematics and Physics, University Roma Tre
- Responsible: Dr. E. Bernieri

Didattica A.A. 2020-2021

- I have held half of the PhD course “Evoluzione delle Galassie ad alto redshift“ 3CFU offered in the PhD degree in Physics of the Department of Mathematics and Physics, University Roma Tre
- Responsible: Prof. F. La Franca

Didattica integrativa A.A. 2014-2015

- 50 hours as tutor for supporting the class “Fisica Generale II” (General Physics second module, classic electromagnetism theory in vacuum and in matter) 12 CFU, offered in the Bachelor degree in Physics of the Department of Physics, University Roma Tre
- Responsible: Prof. G. Matt.

Borsista del Laboratorio di Fisica A.A. 2011-2012 A.A. 2010-2011 A.A. 2009-2010

- Teaching support for the laboratory activities of the courses for the Bachelor degree in Physics, Optics and Optometry, and Geology, offered at the Department of Physics, University Roma Tre.
  As part of the duties, during these three academic years I have also taken part to the to the preparation of numerous outreach activities (such as Open Days, Giornata di Vita Universitaria, Notte dei Ricercatori, Masterclasses etc) held both at the University of Roma Tre and in Frascati
- Responsible: Dr. F. Paolucci

TECHNICAL SKILLS

Job-related skills

- Fundraiser: winner of a grant awarded through the Chilean research agency to support collaboration, traveling, and participation to conferences. Winner of several postdoc fellowships.
- Proposals:
  - **PI of 11 proposals accepted** in several international facilities: Magellan/FIRE (1+2+2 n), VLT/FORS2 (6.4 hrs ESO P106), Blanco/COSMOS (2.5+3 n), NTT/EFOSC2 (3+3 n ESO P104,105), XMM-Newton (AO17, AO18 94+97 ks), LBT/LUCI (13.5 hrs) - updated: July 2021
  - **Co-Investigator of 37 accepted proposals** - updated July 2021
    + optical/NIR spectroscopy ground-based 6.5-8 m telescopes: >300 hrs
    + optical spectroscopy ground-based 3.5-4 m telescopes: >270 hrs
    + optical IFU ground-based 6.5-8 m telescopes (MUSE): 54 hrs
    + Multi band opt/NIR photometry ground-based 6.5-8 m telescope: 53 hrs
    + Multi band opt/nir photometry ground-based 4m telescope: 54 hrs
    + Space-based X-ray observations (Chandra): 736 ks + 2 CCT proposals
- Expert observer, with 12 visiting and remote observing runs at Magellan and SOAR, >230 hrs (updated July 2021).
- Data analysis:
  + Firehose (IDL-based), reflex, IRAF/Pyraf, MIDAS software tools to reduce and analyse near-infrared and optical spectra of AGN.
  + Reduction of VLA (bands L,C,X) and ALMA (ACA and 7-m array) data using CASA and Python.
  + Image visualization and analysis with ds9 and Python.
  + Table visualization and cross match with Topcat and IDL.
  + Multi Gaussian one-dimensional fitting performed with Python pyspeckit package and IDL-based MPFIT.
  + Stellar absorption fitting using Python ppxf package.
  + Two dimensional isophotal fitting performed with GALFIT, Sherpa.
  + X-ray data reduction and analysis performed with CIAO, SAS and XSPEC.
  + X-ray surface brightness profile fit using IDL-based MPFIT.
  + Linear regression fit with IDL-based linmix_err (Bayesian), fitexy (symmetric regression).
  + Use of statistical tests (e.g., F-test, KS etc.).
- Some experience with mentoring students (Kayleigh Richards, Southampton; supervisor: Prof. F. Shankar).

- Good command of OS: Mac OS, Unix, Windows
- Good command of softwares for astronomical data visualization (DS9, atv, ftools, Aladin), reduction (IDL, Reflex, IRAF/Pyraf, CASA, SAS, CIAO) and analysis (IDL, Python, XSPEC, SHERPA), from radio to optical/near-infrared to X-ray.
- Good command of software tools to inspect data bases (Topcat, fv)
- Good command of serial commanding languages (IDL, Python)
- Good command of office suite (word processor, spread sheet, presentation software), e.g. TEX/Latex, Word/Pages, Open Office, Google spread sheets/Excel/Numbers, Beamer/ Power Point/Keynote.

RESEARCH

Publications

45 refereed publications (including 1 in press), 5 as first author, in peer reviewed journals, including AJ, A&A, ApJ, ApJL, ApJS, MNRAS (updated July 2021).
Author of 5 papers submitted to international journals, including one as 1st author.

Projects

- Probing the effect of AGN feedback on galaxies' gas reservoirs at z~1.5 by using ALMA millimeters observations of obscured AGN in XMM-COSMOS. In charge of the ALMA data reduction and analysis. PRIN-MIUR funded project (BLACKOUT, PI. Fiore)
- FONDECYT postdoc project number 3180506: Unveiling the black hole mass - host galaxy connection in obscured accreting supermassive black holes across cosmic time (PI. F. Ricci)
- BASS is on FIRE: NIR spectroscopic follow up of BAT selected local AGN. Contribution inside the BASS collaboration:
  - in charge of the NIR data reduction acquired at Magellan/FIRE;
  - local expert observer for several NIR and optical spectroscopic runs in chilean observatories (>50 hrs)
- The Chandra Survey of Extragalactic Sources in the 3CR Catalog: characterization of X-ray diffuse emission of 3CR radiogalaxies (Chandra, XMM-Newton, Swift) and multi-wavelength follow up of peculiar sources
- Association and optical classification of unidentified Fermi sources as blazars using WISE colors. Preparation and coordination of optical spectroscopic follow up runs, with several visiting and remote observations (> 120 hrs)
- Euclid AGN WP:
  - contribution to development of Python sub-packages to simulate AGN demography accessible to future instrument like Euclid, specifically making use of the radio – X-ray probability distribution function
  - contribution to the creation of stacked NIR spectra to understand Euclid future performances
- ChANGES (Chilean AGN/Galaxy Extragalactic 4MOST Survey)
  - Reduction/analysis team: Develop and implement strategies/software to extract AGN information. Generate realistic 4MOST-like mock AGN spectra to understand completeness and biases in AGN properties.
  - Science team: AGN physics, demography and evolution.

Proposal (PI)

11. CNTAC2020B Magellan/FIRE 2 nights: *Peering into the hidden BLR: constraining the virial factor in obscured X-ray selected local AGN*
10. CNTAC2020B Blanco/COSMOS 3 nights: *Continuing the census of unidentified Fermi gamma-ray sources*
9. ESO P106 VLT/FORS2 6.4 hours: *Peering into the hidden BLR: constraining the virial factor in obscured X-ray selected maser AGN*
8. CNTAC2020A Blanco/COSMOS 2.5 nights: *Continuing the census of unidentified Fermi gamma-ray sources*
7. CNTAC2020A Magellan/FIRE 2 nights: *Peering into the hidden BLR: constraining the virial factor in obscured X-ray selected local AGN*
6. ESO P105 NTT/EFOSC 3 nights: *Continuing the census of unidentified Fermi gamma-ray sources*
5. ESO P104 NTT/EFOSC 3 nights: *Continuing the census of unidentified Fermi gamma-ray sources*
4. CNTAC2019A Magellan/FIRE 1 night: *The BASS is on FIRE: Near-IR spectroscopy of hard X-ray selected AGN in the local Universe*
3. XMM-Newton AO18 94ks (joint Chandra 48 ks): *Echoes of powerful outbursts in 3C 196.1 with XMM-Newton and Chandra*
2. XMM-Newton AO17 97ks (joint Chandra 40 ks): *Hunt for echoes of powerful outbursts in the BCG 3C 196.1: a XMM-Newton + Chandra look*
1. LBT 2016-2017 LBT/LUCI 13.5 hrs: *The first measures of the BH mass in local AGN2: probing the extremes of the Eddington ratio distribution*

Proposal (CoI)

2021

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37. LBT 2021-2022, PI: Vito, LBT/LBC 8 hrs: *A foreground galaxy group toward the X-ray variable QSO J1641 at z=6.047 hinting at gravitational lensing*
36. ESO P108, PI: Venturi, VLT/MUSE 16 hrs: *Unveiling the mistery of turbulent gas perpendicular to low-power radio jets in Seyferts*
35. ESO P108, PI:Trakhtenbrot, VLT/XSH 36.1 hrs: *A Complete Census of SMBHs in Nearby Powerful Obscured Swift-BAT AGN*
34. ESO P108, PI: Vito, VLT/XSH, 11 hrs: *Probing nuclear winds in a peculiarly X-ray weak QSO at z=6.515*
33. CNTAC2021A, PI: Venturi, Magellan/FIRE+MagE, 2 nights: *Unveiling ongoing star-formation inside the galactic outflow of NGC4945*

2020

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32. ESO P106, PI: Vito, VLT/XSH, 11 hrs: *Probing nuclear winds in a peculiarly X-ray weak QSO at z=6.515*
31. ESO P106, PI: Trakhtenbrot, VLT/XSH, 38.7 hrs: *A Complete Census of SMBHs in Nearby Powerful Obscured Swift-BAT AGN*
30. Chandra cycle 22, PI: Massaro, GO 186ks: *Hidden treasures in the 3CR Extragalactic catalog*
29. Chandra cycle 22, PI: Missaglia, GO 200ks: *Investigating the X-ray extended emission around the radio galaxy 3C 297*
28. CNTAC2020A, PI: Vito, Magellan/FIRE 2 nights: *The physical properties of a galaxy system hosting the first heavily obscured QSO candidate at z > 6*
27. CNTAC2020A, PI: Vito, Magellan/IMACS+Fourstar 2 nights: *The environment of an obscured QSO pair at z>6*
26. CNTAC2020A, PI: Vito, Magellan/FIRE 2 nights: *The first optical narrow line QSO candidate at z>6 from the SHELLQ survey*
25. CNTAC2020A, PI: Treister, MPG/GROND 3 nights: *GROND Multiwavelength SEDs of Swift/BAT-selected BASS AGN in Major Galaxy Mergers*
24. CNTAC2020B, PI: C. Ricci, Magellan/MagE 2 nights: *A Complete Census of SMBHs in Nearby Powerful Obscured Swift-BAT AGN*
23. NOAO-Fermi Joint proposal cycle 13, PI: Massaro, *An optical perspective of the unknown gamma-ray sky*
    Telescopes: SOAR/KPNO/Blanco, >30 nights including also NOAO-Fermi Joint proposal cycles 9,10,11,12 (see below)
22. Yale time 2020A, PI: Balokovic, primary CoI: F. Ricci, Magellan/FIRE 1.5 nights: *Infrared spectroscopy of peculiar X-ray selected AGN*

2019
21. ESO P105, PI: Trakhtenbrot, VLT/XSH, 40.7 hrs: *BAT AGN Spectroscopic Survey (BASS) - A Complete Census of SMBHs in Nearby Powerful Obscured AGN*
20. ESO P104, PI: Treister, VLT/MUSE, 14 hrs: *The Nuclear Regions of Nearby Dual AGN at the Highest Resolution with MUSE NFM*
19. ESO P104, PI: Treister, VLT/MUSE, 24 hrs: *High Resolution Kinematics in the Nuclear Region of (U)LIRGs across the Merging Sequence*
18. ESO P104, PI: Trakhtenbrot, VLT/XSH, 55 hrs: *BAT AGN Spectroscopic Survey (BASS) - A Complete Census of SMBHs in Nearby Powerful Obscured AGN*
17. Chandra cycle 21, PI: Massaro, 188ks: Xraying the unknown 3CR Extragalactic sky
16. CNTAC2019A, PI: Treister, MPG/GROND 3 nights: *GROND Multiwavelength SEDs of Swift/BAT-selected BASS AGN in Major Galaxy Mergers*
15. CNTAC2019A, PI:C. Ricci, SOAR 4 nights: *A Complete Census of SMBHs in Nearby Powerful Obscured Swift-BAT AGN*
14. CNTAC2019A, PI:C. Ricci, Magellan/MagE 2 nights: *A Complete Census of SMBHs in Nearby Powerful Obscured Swift-BAT AGN*
13. CNTAC2019B, PI:Vito, Magellan/IMACS MOS, 3 nights: *Unveiling the processes of early SMBH assembly: toward a robust high-redshift AGN X-ray luminosity function*
12. NOAO-Fermi Joint proposal cycle 12, PI: Massaro *Hunting gamma-ray blazars with optical spectroscopic observations*
11. Yale time 2019A, PI: Balokovic, primary CoI: F. Ricci, Magellan/FIRE 1.5 nights: *Infrared spectroscopy of peculiar X-ray selected AGN*

2018
10. Chandra cycle 20, PI: Massaro, GO 162ks: *Completing the Chandra Extragalactic 3CR Survey*
9. Chandra cycle 20, PI: Massaro, CCT: X-ray surveying radio-loud active galaxies and their large scale environments
8. Chandra cycle 20, PI: Koss, CCT: *C-BASS: A Chandra Legacy Survey of AGN at the Highest Spatial Resolutions*
7. LBT 2018-2019, PI:Bianchi, 20 hrs*: The smallest central accreting BHs in low mass galaxies*
6. NOAO-Fermi Joint proposal cycle 11, PI: Massaro: *The Optical Spectroscopic campaign of gamma-ray blazar candidates: 10 yrs after the FERMI launch*

2017
5. LBT 2016-2017, PI: Zappacosta, LBT/LUCI 0.33 hrs + LBT/MODS 0.1 hrs: *Probing variable gas motions in the hyperluminous quasar SDSSJ1521+5202*
4. NOAO-Fermi Joint proposal cycle 10, PI: Massaro: *Completing the optical Spectroscopic campaign of the gamma-ray blazar candidates*

2016
3. ESO P97, PI: Zappacosta, VLT/XSH 2hrs: *The puzzling variable line shifts in hyperluminous quasars*
2. NOAO-Fermi Joint proposal cycle 9, PI: Massaro: *Continuing the optical Spectroscopic campaign of the gamma-ray blazar candidates*

2014
1. ESO P93, PI: Onori, VLT/XSH 8 hrs: *The first measure of the local density of the Low Mass Black Holes via NIR spectroscopy of AGN2*

Service for the community

- 12/2018: LOC of the TORUS2018 meeting, Puerto Varas (CL)
- 06/2019 - 09/2020: IA Postdoc representative
- 11/2019: Review editor for Extragalactic Astronomy for the Frontiers in Astronomy and Space Science Journal
- 07/2021: Co-organizer of the Friday AGN MEetings (FAME), bi-weekly meetings of the Bologna IRA/INAF/DIFA Extragalactic AGN and Galaxies Group.

Conferences (as speaker)

- 01/2022 (TBD): 239th Meeting of the American Astronomical Society, Salt Lake City UT (USA). Talk: *The near-infrared view of the BLR: the effects of obscuration in BLR characterisation* in the Special session Highlights from the BASS DR2: New insights on local SMBH activity from large multi-wavelength studies of hard X-ray selected AGN
- 12/2020 Supermassive Black holes, Chile (online). Talk: *Peering into the hidden BLR: constraining the virial factor in obscured X-ray selected local AGN*
- 09/2019: The 3C Extragalactic radio sky survey: legacy of the third Cambridge catalogue, Turin (IT). Talk: *Stormy weather in 3C 196.1: Nuclear Outbursts and Merger Events Shape the Environment of the Hybrid Radio Galaxy 3C 196.*
- 09/2018: CLUSTER2, Napoli (IT). Talk: *Stormy weather in 3C 196.1: an hybrid morphology radio galaxy nuclear outburst shapes the environment of the surrounding cluster ICM*
- 08/2018: Are AGN Special? Durham (UK). Talk: *The role of AGN in the hydrogen reionization or are AGN special for the hydrogen reionization?*
- 07/2018: The early growth of Supermassive Black Holes, Sexten (IT). Talk: *The Mbh – galaxy scaling relations in the local Universe: what is the role of type 2 AGN*
- 11/2017: Galaxy Evolution & Environment, Arcetri (IT). Talk: *The BH mass - galaxy scaling relations in the local Universe: what is the role of type 2 AGN?*
- 09/2016: Active Galactic Nuclei 12: a Multi-Messenger perspective, Naples (IT). Talk: *The BH mass - K-bulge luminosity relation in type 2 AGN*
- 08/2016: Hidden Monsters: Obscured AGN and Connections to Galaxy Evolution, Dartmouth (USA). Talk: *The BH mass - K-bulge luminosity relation in type 2 AGN*
- 07/2016: Active Galactic Nuclei: what's in a name?, Garching (GER). Talk: *The BH mass - Kbulge luminosity relation in type 2 AGN*
- 06/2016: Hot spots in the XMM sky: Cosmology from X-ray to Radio, Mykonos (GR). Talk: *Constraining the UV emissivity of AGN throughout cosmic time via X-ray surveys*
- 09/2015: Demographics and Environment of AGN from Multi-Wavelength Surveys, Chania (GR). Talk: *AGN feedback: kinetic and radiative efficiencies*
- 06/2014: The Unquiet Universe, Cefalu` (IT). Talk: *Looking for the broad emission lines in AGN2 with deep NIR spectroscopy and the measure of the mass of Intermediate Mass BH*

Seminars (invited)

- 10/2020: Astrophysics Talk UniBO, Bologna (IT)
- 09/2020: ALMA-JAO Colloquium, Santiago (CL)
- 10/2018: Departamento de Física, Universidad de Chile, Santiago (CL)
- 10/2018: Facultad de Ingeniería y Ciencias, Universidad Diego Portales, Santiago (CL)
- 11/2017: Osservatorio Astronomico di Brera, INAF, Milano (IT)
- 11/2017: Osservatorio Astronomico di Roma, INAF, Monte Porzio Catone RM (IT)
- 09/2017: CfA High Energy Astrophysics Division, Harvard-Smithsonian Astrophysical Observatory, Cambridge (USA)
- 06/2017: Colloquium at Osservatorio di Radioastronomia, INAF, Bologna (IT)
- 05/2017: ESO TMT, Santiago (CL)
- 05/2017: Instituto de Astrofísica, Facultad de Física, Pontificia Universidad Católica de Chile, Santiago (CL)
- 10/2014: CfA High Energy Astrophysics Division, Harvard-Smithsonian Astrophysical Observatory, Cambridge (USA)
- 09/2014: CfA High Energy Astrophysics Division, Harvard-Smithsonian Astrophysical Observatory, Cambridge (USA)

Honours and awards

- Cultore della Materia (Roma Tre University, A.A. 2020-2021 / 2022-2023)
- Associatura INAF-OAS (2020 - 2022)
- FONDECYT fellowship – 3 years independent postdoctoral fellowship awarded through Chilean public research agency. The project has been awarded 8th over 26 successful applications in the Astronomy, Cosmology and Particles Group (success rate 40%)
- FONDECYT grant: 13.5 Million CLP (corresponding to 19.5 kUSD, 3 years) to foster collaborations and support traveling, conferences, workshop participation
- ESO fellowship (declined)
- PhD scholarship (40k EUR, 3 years)

Workshops

- 07/2020 BASS annual (online) workshop. Talk (invited) *The NIR view of the BLR*
- 04/2020 ALMA Community Day Event at the JAO, Santiago
- 05/2019: SMBH: Formation and Growth in Conce, Concepcion (CL). Talk: *Looking through FIRE: NIR spectra of BASS AGN*
- 03/2019 ALMA Community Day Event at the JAO, Santiago
- 01/2019 BASS workshop in Gainesville, Florida (USA) Talk: *Unveiling the BH mass - host galaxy connection in obscured accreting supermassive black holes*
- 12/2018 Basal/CATA UC annual workshop, Majadas de Pirque, Pirque (CL)
- 09/2018: PUC-KIAA Bilateral Workshop, Santiago (CL). Talk (invited): *The role of AGN in the hydrogen reionization*
- 03/2018: Local hard X-ray selected AGN across the multi-wavelength spectrum, Santiago (CL). Talk (invited): *The BH mass - galaxy scaling relations in the local Universe: what is the role of type 2 AGN?*
- 05/2015 JWST workshop: User training in JWST Data Analysis, Space Telescope Science Institute, Baltimore (USA)
- 11/2013 ESO ALMA workshop: ALMA Community Days: Preparing for Cycle 2, ESO Headquarters, Garching (GER)

PhD Schools

- 10/2015 ESO school F. Lucchin: Science and Technology with E-ELT, Fondazione E. Maiorana, Erice (IT)
- 11/2014 XXVI Canary Islands Winter School of Astrophysics “Bayesian Astrophysics”, Instituto de Astrofisica de Canarias, Tenerife (ES)
- 06/2014 Severo Ochoa School: Exploiting Extragalactic Surveys in the era of Large Telescope, Universidad de La Laguna, Tenerife (ES)

Memberships

- BASS survey member
- Euclid survey member (AGN WP)
- ChANGES (Chilean AGN/Galaxy Extragalactic 4MOST Survey): color+variability-selected AGN
- Athena WG: Formation and Growth of the earliest SMBH
- Athena WG: Understanding the buildup of SMBH and galaxies
- SPICA

References

Prof. M. Brusa, Prof. E. Treister; Prof. F. La Franca

Bibliometric indexes

969 total citations, 109 on first author papers, h-index 16, m-index 2.67, according to SAO/NASA ADS (updated 08/2021).

ANNEXES

- Publication list

La sottoscritta, consapevole che – ai sensi dell’art. 76 del D.P.R. 445/2000 – le dichiarazioni mendaci, la falsità negli atti e l’uso di atti falsi sono puniti ai sensi del codice penale e delle leggi speciali, dichiara che le informazioni rispondono a verità.

Luogo e data: Roma 4/08/2021

FULL LIST OF PUBLICATIONS

Refereed - 1st author

1. **F. Ricci**, L. Lovisari, R. Kraft, F. Massaro, A. Paggi, E. Liuzzo, G. Tremblay, W. R. Forman,S. Baum, C. O'Dea, B. Wilkes, **2018 ApJ, 867, 35**:**"Stormy Weather in 3C 196.1: Nuclear Outbursts and Merger Events Shape the Environment of the Hybrid Radio Galaxy 3C 196.1"**
https://arxiv.org/abs/1809.10693
2. **F. Ricci**, F. La Franca, A. Marconi, F. Onori, F. Shankar, R. Schneider, E. Sani, S. Bianchi, A. Bongiorno, M. Brusa, F. Fiore, R. Maiolino, C. Vignali, **2017, MNRAS Letters, 471, L41**: **"Detection of faint broad emission lines in type 2 AGN: III. On the $M_{BH} - \sigma_\star$ relation of type 2 AGN "**
https://arxiv.org/pdf/1706.06110.pdf
3. **F. Ricci**, S. Marchesi, F. Shankar, F. La Franca, F. Civano **2017, MNRAS 465, 1915**: **"Constraining the UV emissivity of AGN throughout cosmic time via X-ray surveys"**
https://mnras.oxfordjournals.org/content/465/2/1915.full.pdf+html
4. **F. Ricci**, F. La Franca, F. Onori, S. Bianchi **2017, A&A 598, 51: "Novel calibrations of virial black hole mass estimators in active galaxies based on X–ray luminosity and optical/NIR emission lines"**
http://www.aanda.org/articles/aa/pdf/2017/02/aa29380-16.pdf
5. **F. Ricci**, F. Massaro, M. Landoni, R. D'Abrusco, D. Milisavljevic, D.Stern, N. Masetti, A. Paggi, Howard A. Smith, G. Tosti **2015, AJ, 149, 160**: **"Optical spectroscopic observations of gamma-ray blazar candidates IV. Results of the 2014 follow-up campaign"**
http://adsabs.harvard.edu/abs/2015AJ....149..160R

Refereed

6. H. A. Peña-Herazo, F. Massaro, M. Gu, A. Paggi, M. Landoni, R. D'Abrusco, **F. Ricci**, N. Masetti, V. Chavushyan **2021, AJ, 162, 76: "An Optical Overview of Blazars with LAMOST. II. Gamma-Ray Blazar Candidates and Updated Classifications"**
http://dx.doi.org/10.3847/1538-3881/ac09e2
7. F. Vito, W. N. Brandt, **F. Ricci**, E. Congiu, T. Connor, E. Bañados, F.E. Bauer, R. Gilli, B. Luo, C. Mazzucchelli, M. Mignoli, O. Shemmer, C. Vignali, F. Calura, A. Comastri, R. Decarli, S. Gallerani, R. Nanni, M. Brusa, N. Cappelluti, F. Civano, G. Zamorani, **2021, A&A, 649A,133V: "Chandra and Magellan/FIRE follow-up observations of PSO167-13: An X-ray weak QSO at z = 6.515"**
https://arxiv.org/pdf/2103.06901
8. R. Pfeifle, C. Ricci, P. G. Boorman, M. Stalevski, D. Asmus, B. Trakhtenbrot, M. J. Koss, D. Stern, **F. Ricci** and BASS collaboration, **ApJS accepted (to appear in the BASS DR2 special issue): "BAT AGN Spectroscopic Survey-XXIII. A New Mid-Infrared Diagnostic for Absorption in Active Galactic Nuclei"**
https://arxiv.org/pdf/2102.04412
9. V. Missaglia, F. Massaro, E. Liuzzo, A. Paggi, R.P. Kraft, W. R. Forman, A. Jimenez-Gallardo, J.P. Madrid, **F. Ricci**, C. Stuardi, B. J. Wilkes, S.A. Baum, C. P. O'Dea, J. Kuraszkiewicz, G.R. Tremblay, A. Maselli, A. Capetti, E. Sani, B. Balmaverde, D. E. Harris, **2021, ApJS, 255, 18M: "Hidden Treasures in the Unknown 3CR Extragalactic Radio Sky: A Multiwavelength Approach"**
https://iopscience.iop.org/article/10.3847/1538-4365/ac00b6
10. K. K. Gupta, C. Ricci, A. Tortosa, Y. Ueda, T. Kawamuro, M. Koss, B. Trakhtenbrot, K. Oh, F.E. Bauer, **F. Ricci**, G. C. Privon, L. Zappacosta, D. Stern, D. Kakkad, E. Piconcelli, S. Veilleux, R. Mushotzky, T. Caglar, K. Ichikawa, A. Elagali, M. C. Powell, C. M. Urry, F. Harrison, **2021, MNRAS, 504, 428G: "BAT AGN Spectroscopic Survey XXVII: scattered X-Ray radiation in obscured active galactic nuclei"**
https://arxiv.org/pdf/2103.10543
11. A. Jimenez-Gallardo, F. Massaro, B. Balmaverde, A. Paggi, A. Capetti, W. R. Forman, W. R.; R. P. Kraft, R.D. Baldi, V. H. Mahatma, C. Mazzucchelli, V. Missaglia, **F. Ricci**, G. Venturi, S. A. Baum, E. Liuzzo, C. P. O'Dea, M. A. Prieto, H. J. A. Röttgering, E. Sani, W. B. Sparks,G. R. Tremblay, R. J. van Weeren, B. J. Wilkes, J. J. Harwood, P. Mazzotta, J. Kuraszkiewicz, **2021, ApJ, 912L, 25J: "Raining in MKW 3 s: A Chandra-MUSE Analysis of X-Ray Cold Filaments around 3CR 318.1"**
https://arxiv.org/pdf/2104.07677
12. D. Tubìn, E. Treister, G. D'Ago, G. Venturi, F. E. Bauer, G. Privon, M. J. Koss, **F. Ricci**, J. M. Comerford, F. Müller-Sánchez, **2021, ApJ, 911, 100T: "The Complex Gaseous and Stellar Environments of the Nearby Dual Active Galactic Nucleus Mrk 739"**
https://arxiv.org/pdf/2103.12180

- 26 April 2021, appeared on the ESO press release: "Eyes in the sky"
  https://www.eso.org/public/images/potw2117a/

13. H.A. Peña-Herazo, F. Massaro, M. Gu, A. Paggi, M. Landoni, R. D'Abrusco, **F. Ricci**, N. Masetti, V. Chavushyan, **2021, AJ, 161, 196P: "An Optical Overview of Blazars with LAMOST. I. Hunting Changing-look Blazars and New Redshift Estimates"**
    https://arxiv.org/pdf/2103.10861
14. A. Paggi, F. Massaro, H. A. Peña-Herazo, V. Missaglia, **F. Ricci**, C. Stuardi, R. P. Kraft, G. R. Tremblay, S. A. Baum, B. J. Wilkes **2021, A&A, 647A, 79P: "Peering into the extended X-ray emission on megaparsec scale in 3C 187"**
    https://arxiv.org/pdf/2012.11610
15. A. Jimenez-Gallardo, F. Massaro, A. Paggi, R. D'Abrusco, M. A. Prieto, H. A. Peña-Herazo, V. Berta, **F. Ricci**, C. Stuardi, B. J. Wilkes, C. P. O'Dea, S. A. Baum, R. P. Kraft, W. R. Forman, C. Jones, B. Mingo, E. Liuzzo, B. Balmaverde, A. Capetti, V. Missaglia, M. J. Hardcastle, R. D. Baldi, L. K. Morabito **2021, ApJS, 252, 31J: "Extended X-Ray Emission around FR II Radio Galaxies: Hot Spots, Lobes, and Galaxy Clusters"**
    https://arxiv.org/pdf/2011.04668
16. K. L. Smith, M. Koss, R. Mushotzky, I. O. Wong, T. T. Shimizu, C. Ricci, **F. Ricci**, **2020, ApJ, 904, 83S: "Significant Suppression of Star Formation in Radio-quiet AGN Host Galaxies with Kiloparsec-scale Radio Structures"**
    https://arxiv.org/pdf/2010.13806
17. A. Jimenez Gallardo, F. Massaro, M. A. Prieto, V. Missaglia, C. Stuardi, A. Paggi, **F. Ricci**, R. P. Kraft, E. Liuzzo, G. R. Tremblay, S. A. Baum, C. P. O'Dea, B. J. Wilkes, J. Kuraszkiewicz, W. R. Forman, D. E. Harris, **2020, ApJS, 250, 7J: "Completing the 3CR Chandra Snapshot Survey: Extragalctic Radio Sources at high redshift"**
    https://arxiv.org/pdf/2007.02945
18. H. A. Peña-Herazo, R. A. Amaya-Almazán, F. Massaro, R. de Menezes, E. J. Marchesini, V. Chavushyan, A. Paggi, M. Landoni N. Masetti, **F. Ricci**, R. D'Abrusco, C.C. Cheung, F. La Franca, H. A. Smith, D. Milisavljevic, E. Jiménez-Bailón, V. M. Patiño-Álvarez, and G. Tosti, **2020, A&A, 643A, 103P:"Optical spectroscopic observations of low-energy counterparts of Fermi-LAT γ-ray sources"**
    https://arxiv.org/pdf/2009.07905.pdf
19. F. Shankar, D. H. Weinberg, C. Marsden, P. J. Grylls, M Bernardi, G. Yang, B. Moster, R. Carraro, D. M. Alexander, V. Allevato, T. T. Ananna, A. Bongiorno, G. Calderone, F. Civano, E. Daddi, I. DelVecchio, F. Duras, F. La Franca, A. Lapi, Y. Lu, N. Menci, M. Mezcua, **F. Ricci**, G. Rodighiero, R. K. Sheth, H. Suh, C. Villforth, L. Zanisi, **2020, MNRAS, 493, 1500S: "Probing black hole accretion tracks, scaling relations and radiative efficiencies from stacked X-ray active galactic nuclei"**
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20. K. L. Smith, R. Mushotzky, M. Koss, B. Trakhtenbrot, C. Ricci, O. I. Wong, F. E. Bauer, **F. Ricci**, S. Vogel, D. Stern, M. Powell, C. M. Urry, F. Harrison, J. Mejia-Restrepo, K. Oh, J. Baek, A. Chung, **2020, MNRAS, 492, 4216S:"BAT AGN spectroscopic survey - XV: the high frequency radio cores of ultra-hard X-ray selected AGN"**
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21. A. F. Rojas, E. Sani, I. Gavignaud, C. Ricci, I. Lamperti, M. Koss, B. Trakhtenbrot, K. Schawinski, K. Oh, F. E. Bauer, M. Bischetti, R Boissay-Malaquin, A. Bongiorno, F. Harrison, D. Kakkad, N. Masetti, **F. Ricci**, T. Shimizu, M. Stalevski, D. Stern, G. Vietri, G., **2020, MNRAS, 491, 5867: BAT AGN Spectroscopic Survey - XIX. Type 1 versus type 2 AGN dichotomy from the point of view of ionized outflows**
    https://arxiv.org/pdf/1911.12395.pdf
22. F. Duras, A. Bongiorno, **F. Ricci**, E. Piconcelli, F. Shankar, E. Lusso, S. Bianchi, F. Fiore, R. Maiolino, A. Marconi, F. Onori, E. Sani, R. Schneider, C. Vignali, F. La Franca **2020, A&A, 636A, 73D: "Universal bolometric corrections for AGN over 7 luminosity decades"**
    https://arxiv.org/pdf/2001.09984.pdf
23. R. de Menezes, R. A. Amaya-Almazán, E. J. Marchesini,H. A. Peña-Herazo, F. Massaro, V. Chavushyan, A. Paggi, M. Landoni, N. Masetti, **F. Ricci**, R. D'Abrusco, F. La Franca, H. A. Smith, D. Milisavljevic, G. Tosti, E. Jiménez-Bailón, C. C. Cheung, **2020, Ap&SS, 365, 12D2020/01 "Optical spectroscopic observations of gamma-ray blazar candidates. X. Results from the 2018-2019 SOAR and OAN-SPM observations of blazar candidates of uncertain type"**

24. F. Shankar, V. Allevato, M. Bernardi, C. Marsden, A. Lapi, N. Menci, P. J. Grylls, M. Krumpe, L. Zanisi, **F. Ricci**, F. La Franca, R. D. Baldi, J. Moreno, R. K. Sheth, **2020, Nature Astronomy, 4, 282S: "Constraining black hole-galaxy scaling relations and radiative efficiency from galaxy clustering"**
    - 9 Dec 2019 appeared on MEDIA INAF: Buchi neri supermassicci più leggeri del previsto https://www.media.inaf.it/2019/12/09/buchi-neri-si-alleggeriscono
25. R. E. Baer, B. Trakhtenbrot, K. Oh, M. J. Koss, O. I. Wong, C. Ricci, K. Schawinski, A. K. Weigel, L. F. Sartori, K. Ichikawa, N. J. Secrest, D. Stern, F. Pacucci, R. Mushotzky, M. C. Powell, **F. Ricci**, K. L. Smith, I. Lamperti, C. M. Urry **2019, MNRAS, 489, 3073:"BAT AGN Spectroscopic Survey XIII. The nature of the most luminous obscured AGN in the low-redshift universe"** https://arxiv.org/pdf/1908.07546.pdf
26. R. de Menezes, H. A. Peña-Herazo, E. J. Marchesini, R. D'Abrusco, N. Masetti, N. Rodrigo, F. Massaro, **F. Ricci**, M. Landoni, A. Paggi, H. A. Smith, **2019, A&A, 630A, 55: "Optical characterization of WISE selected blazar candidates"** https://arxiv.org/pdf/1908.05229.pdf
27. F. Shankar, M. Bernardi, K. Richardson, C. Marsden, R. K. Sheth, V. Allevato, L. Graziani, M. Mezcua, **F. Ricci**, S. J. Penny, F. La Franca, F. Pacucci, **2019, MNRAS, 485, 1278:"Black hole scaling relations of active and quiescent galaxies: Addressing selection effects and constraining virial factors"** https://arxiv.org/pdf/1901.11036.pdf
28. R. D'Abrusco, N. Alvarez Crespo, F. Massaro, R. Campana, V. Chavushyan, M. Landoni, F. La Franca, N. Masetti,D. Milisavljevic, A. Paggi, **F. Ricci**, H. A. Smith, **2019, ApJS, 242, 4:"Two new catalogs of γ-ray blazar candidates in the WISE infrared sky"** https://arxiv.org/pdf/1903.11124.pdf
29. H. A. Peña-Herazo, F. Massaro, V. Chavushyan, E. J. Marchesini, A. Paggi, M. Landoni, N. Masetti, **F. Ricci**, R. D'Abrusco, D. Milisavljevic, E. Jiménez Bailón, F. La Franca, H. A. Smith, G. Tosti, **2019, Ap&SS, 364, 85:"Optical spectroscopic observations of gamma-ray blazar candidates. IX. Optical archival spectra and further observations from SOAR and OAGH"**
30. E. J. Marchesini, H. A. Peña-Herazo, N. Alvarez Crespo, **F. Ricci**, M. Negro, D. Milisavljevic, F. Massaro,N. Masetti, M. Landoni, V. Chavushyan, R. D'Abrusco, E. Jiménez-Bailón, F. La Franca, A. Paggi, H. A. Smith, G. Tosti, **2019, Ap&SS, 364, 5: "Optical Spectroscopic Observations of Gamma-Ray Blazar Candidates VIII: The 2016-2017 follow up campaign carried out at SPM, NOT, KPNO and SOAR telescopes"** https://arxiv.org/pdf/1903.10011.pdf
31. G. Vietri, E. Piconcelli, M. Bischetti, F. Duras, S. Martocchia, A. Bongiorno, A. Marconi, L. Zappacosta, S. Bisogni, G. Bruni, M. Brusa, A. Comastri, G. Cresci, C. Feruglio, E. Giallongo, F. La Franca, V. Mainieri, F. Mannucci, **F. Ricci**, E. Sani, V. Testa, F. Tombesi, C. Vignali, F. Fiore, 2018 **A&A, 617A, 81: "The WISSH Quasars Project IV. BLR versus kpc-scale winds"** https://arxiv.org/abs/1802.03423
32. C. Stuardi, V. Missaglia, F. Massaro, **F. Ricci**, E. Liuzzo, A. Paggi, R. P. Kraft, G. R. Tremblay, S. A. Baum, C. P. O'Dea, B. J. Wilkes, J. Kuraszkiewicz, W. R. Forman, D. E. Harris, **2018, ApJS, 235, 32: "The 3CR *Chandra* snapshot survey: extragalactic radio sources with redshifts between 1 and 1.5"** https://arxiv.org/abs/1806.11125
33. E. Sani, **F. Ricci**, F. La Franca, S. Bianchi, A. Bongiorno, M. Brusa, A. Marconi, F. Onori, F. Shankar, C. Vignali, 2018 **Front. Astron. Space Sci. 5:2 : "NGC 1275: an outlier of the black hole-host scaling relations"** https://arxiv.org/abs/1803.11013
34. H. A. Peña-Herazo, E. J. Marchesini, N. Alvarez Crespo, **F. Ricci**, F. Massaro, V. Chavushyan, M.Landoni, J. Strader, L. Chomiuk, C. C. Cheung, N. Masseti, E. Jimenez-Bailón, R. D'Abrusco, A. Paggi, D. Milisavljevic, F. La Franca, H. A. Smith, G. Tosti, **Astrophys Space Sci, 2017, 362: 228. "Optical Spectroscopic Observations of Gamma-Ray Blazar Candidates. VII. Follow up Campaign in the Southern Hemishpere"** https://link.springer.com/article/10.1007%2Fs10509-017-3208-7
35. M. Nicholl, E. Berger, D. Kasen, B. D. Metzger, J. Elias, C. Briceno, K. D. Alexander, P. K. Blanchard, R. Chornock, P. S. Cowperthwaitei, T. Eftekhari, W. Fong, R. Margutti, V. A. Villar, P. K. G. Williams, W. Brown, J. Annis, A. Bahramian, D. Brout, D. A. Brown, H.-Y. Chen, J. C. Clemens, E. Dennihy, B. Dunlap, D. E. Holz, E. Marchesini, F. Massaro, N. Moskowitz, I. Pelisoli, A. Rest, **F. Ricci**, M. Sako, M. Soares-Santos, J. Strader, **2017, ApJL, 848, L18 "The electromagnetic counterpart of the binary neutron star merge LIGO/VIRGO GW170817. III. Optical and UV spectra of a blue kilonova from fast polar ejecta"** http://iopscience.iop.org/article/10.3847/2041-8213/aa9029/pdf

  - 16 Oct 2017: featured in several press conferences (NFS, ESO) for the discovery of the first gravitational wave and light signal of two neutron star merger (i.e. a kilonova)

36. F. Onori, **F. Ricci**, F. La Franca, S. Bianchi, A. Bongiorno,M. Brusa, F. Fiore, R. Maiolino, A. Marconi, E. Sani, C. Vignali **2017, MNRAS, 468, L97: "Detection of faint broad emission lines in type 2 AGN: II. On the measurement of the BH mass of type 2 AGN and the unified model"**
https://doi.org/10.1093/mnrasl/slx032
37. M. Pierre, ..., F. Ricci et al, (XXL consortium) **2017, Astronomische Nachrichten, 338, 334P: "The XXL Survey: first results and future"**
http://onlinelibrary.wiley.com/store/10.1002/asna.201713352/asset/asna201713352.pdf
38. M. Bischetti, E. Piconcelli, G. Vietri, A. Bongiorno, F. Fiore, E. Sani, A. Marconi, F. Duras,L. Zappacosta, M. Brusa, A. Comastri, G. Cresci, C. Feruglio, E. Giallongo, F. La Franca, V. Mainieri, F. Mannucci, S. Martocchia, **F. Ricci**, R. Schneider, V. Testa, C. Vignali **2017, A&A, 598, A122: "The WISSH Quasars Project I. Powerful ionised outflows in hyper-luminous quasars"**
http://www.aanda.org/articles/aa/pdf/2017/02/aa29301-16.pdf
39. F. Onori, F. La Franca, **F. Ricci**, M. Brusa, E. Sani, R. Maiolino, S. Bianchi, A. Bongiorno, F. Fiore, A. Marconi, C. Vignali **2017, MNRAS, 464, 1783: "Detection of faint broad emission line components in hard X-ray selected Type 2 AGN: I. Observations and spectral fitting"**
http://mnras.oxfordjournals.org/content/464/2/1783.full.pdf+html
40. F. Massaro, N. Alvarez Crespo, R. D'Abrusco, M. Landoni, N. Masetti, **F. Ricci**, D. Milisavljevic, A. Paggi,V. Chavushyan, E. Jimenez-Bailon, V. Patino-Alvarez, C.C. Cheung, J. Strader, L.Chomiuk, F. La Franca,Howard A. Smith, G. Tosti **2016, Ap&SS**: **"The Gamma-ray Blazar Quest: new optical spectra, state of art and future perspectives"**
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- J. S. den Brok, M. J. Koss, B. Trakhtenbrot and BASS collaboration **ApJS submitted (to appear in the BASS DR2 special issue): BASS XXVIII: NIR DR2, High-Ionization and Broad Lines in AGN**
- **F. Ricci**, E. Treister, F. E. Bauer and BASS collaboration **ApJS submitted (to appear in the BASS DR2 special issue): BASS XXIX: The near-infrared view of the BLR: the effects of obscuration in BLR characterisation**

- T. T. Ananna, A. K. Weigel, B. Trakhtenbrot and BASS collaboration **ApJS submitted (to appear in the BASS DR2 special issue): BASS XXX: Distribution Functions of DR2 Eddington-ratios, Black Hole Masses, and X-ray Luminosities**
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