Curriculum Vitae

PERSONAL DATA

Family name Ricci First name Claudio Nationality Italian Place of birth Rome

HOMEPAGE www.claudioricci.eu

Mail address claudio.ricci.astro[at]gmail.com

RESEARCH INTERESTS

Supermassive black holes, Active Galactic Nuclei (AGN) physical structure and kinematics, AGN evolution and surveys, high-energy astrophysics, high-resolution X-ray spectroscopy, simulations of reprocessed X-ray radiation (ray tracing), heavily obscured AGN, Luminous and Ultra-luminous infrared galaxies and mergers, Cosmic X-ray background.

RESEARCH EXPERIENCE

| Mar. 2018 – Present | Assistant professor at the Nucleo de Astronomia, |
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| | Universidad Diego Portales, Santiago, Chile; |
| | Long-term visiting professor at the Kavli Institute |
| | for Astronomy and Astrophysics, Peking University, |
| | Beijing, China; |
| | Affiliated faculty at the Dept. of Astronomy |
| | George Mason University, Fairfax, USA |
| Apr. 2016 – Mar. 2018 | China-Conicyt fellow at the Institute of Astrophysics |
| | Pontificia Universidad Catolica de Chile Santiago, Chile; |
| Feb. 2015 – Mar. 2016 | Postdoctoral fellow at the Institute of Astrophysics, |
| | Pontificia Universidad Catolica de Chile Santiago, Chile. |
| Dec. 2012 – Dec. 2014 | JSPS fellow at the Dept. of Astronomy, Kyoto University, |
| | Kyoto, Japan. |
| Jan. 2012 – Oct. 2012 | ASTRO-H postdoctoral fellow at the Dept. of Astronomy, |
| | University of Geneva, Geneva, Switzerland. |
| Jan. 2008 – Dec. 2011 | Ph.D in astrophysics at the Dept. of Astronomy, |
| | University of Geneva, Geneva, Switzerland. |

EDUCATION

Jan. 2008 – Dec. 2011 Ph.D in astrophysics at the Dept. of Astronomy,

University of Geneva, Geneva, Switzerland

Thesis title: Active Galactic Nuclei at hard X-ray energies:

Absorption, Reflection and the Unified Model.

Grade: Très bien (highest grade).

Sep. 2005 – Oct. 2007 Master in Astrophysics at Rome University La Sapienza, Rome, Italy and at the University of Geneva, Switzerland. Thesis title: Multiwavelength study of the active galaxy IGR J21247+5058.

Grade: 110/110 cum laude.
Exam's grade average: 29.9/30. Rank: first of my class.

Sep. 2002 – Sep.2005 Bachelor in physics at Rome University, La Sapienza, Rome, Italy.
Thesis title: Globular cluster systems in galaxies.

Grade: 110/110 cum laude.

Conferences and seminars

Talk Contributions

| Dec. 2020 | Invited talk at the Chilean Astronomical Society National meeting |
|-----------|---|
| Dec. 2020 | Contributed talk at the Supermassive black holes: Formation, growth and evolution conference |
| Nov. 2020 | Invited colloquium at the Astronomical Institute of the Czech Academy of Sciences |
| | Prague, Czech Republic |
| Oct. 2020 | Invited colloquium at Institute of Institute of Astronomy, Geophysics and Atmospheric Sciences, University of Sao Paulo Sao Paulo, Brazil |
| Jul. 2020 | Invited talk at the First Latin American Conference on Astrophysics and Relativity conference [postponed], Bogota, Colombia |
| Jun. 2020 | Invited talk at the The High-Energy Universe in Focus: NuSTAR 2020 conference [postponed], Cagliari, Italy |
| May 2020 | Invited colloquium at Cambridge University, Cambridge, UK |
| Jan. 2020 | Invited Colloquium at Osaka University, Osaka, Japan |
| Jan. 2020 | Contributed talk at the <i>Tidal Disruptions in Kyoto:</i> Confronting Theory with Observations conference, Kyoto, Japan |
| Nov. 2019 | Invited talk at the CASSACA annual workshop, Santiago, Chile |
| Oct. 2019 | Invited talk at the IAU Symposium: Nuclear Activity in Galaxies Across Cosmic Time Addis Ababa, Ethiopia |
| Sep. 2019 | Invited colloquium at the Observatory of Roma, Roma, Italy |
| Sep. 2019 | Invited colloquium at the Scuola Normale, Pisa, Italy |

| Sep. 2019 | Invited talk at the X-ray Astronomy 2019 – Current Challenges and New Frontiers in the Next Decade conference Bologna, Italy |
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| Jun. 2019 | Invited talk at the Supermassive Black Holes: Environment and Evolution conference Corfu, Greece |
| Feb. 2019 | Invited talk at the INTEGRAL looks AHEAD to Multimessenger astronomy workshop Geneva, Switzerland |
| Feb. 2019 | Contributed talk at the $BAT\ AGN\ Spectroscopic\ Survey\ 2019$ workshop Gainesville, USA |
| Jan. 2019 | Contributed talk at the $East\ Asia\ AGN$ workshop Taipei, Taiwan |
| Jan. 2019 | Invited talk at the X-ray Surveys of the Hot and Energetic Universe conference Harbin, China |
| Dec. 2018 | Invited review talk at the Torus workshop 2018 Puerto Varas, Chile |
| Oct. 2018 | Contributed talk at the <i>Chilean Astronomical Society National meeting</i> La Serena, Chile |
| Jul. 2018 | Invited colloquium at the National Astronomical Observatory of, China/CAS Beijing, China |
| Jul. 2018 | Invited review talk at the AGN X-ray Surveys: Soft to Hard and Deep to Wide at the COSPAR Scientific Assembly 2018 Pasadena, USA |
| Jul. 2018 | Lunch talk at the Kavli Institute for Astronomy and Astrophysics Beijing, China |
| Jan. 2018 | Invited talk at the BASS special session at the 231st Meeting of the American Astronomical Society Washington DC, USA |
| Dec. 2017 | Contributed talk at the <i>Towards Science in Chile with LSST</i> workshop Santiago, Chile |
| Oct. 2017 | Colloquium at Universidad de Chile Santiago, Chile |
| Oct. 2017 | Invited talk at the INTEGRAL Symposium 2017 Venice, Italy |
| June 2017 | Invited talk at the Behind the curtains of dust II, the molecular and multi-wavelength view of activity in (U)LIRGs workshop Sexten, Italy |
| June 2017 | Contributed talk at the Accreting Black holes at their extremes symposium of the European Astronomical Society meeting Prague, Czech Republic |
| June 2017 | Colloquium at Observatoire de Geneve Geneva, Switzerland |
| June 2017 | Invited talk at the <i>Elusive AGN in the next era</i> conference Fairfax, USA |
| June 2017 | Contributed talk at the X -ray U niverse conference Rome, Italy |

| May 2017 | Invited colloquium at the Joint ALMA observatory, Santiago, Chile |
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| Feb. 2017 | Invited colloquium at the Department of Astronomy, Xiamen University Xiamen, China |
| Feb. 2017 | Contributed talk at the KIAA-PUC Bilateral Workshop on Active Galactic Nuclei and Galaxies Beijing, China |
| Jan. 2017 | Contributed talk at the Annual meeting of the Chilean Astronomical society Marbella, Chile |
| Aug. 2016 | Contributed talk at the <i>Hidden monsters – obscured</i> AGN and connections to Galaxy evolution conference, Dartmouth, USA |
| Feb. 2016 | Invited review talk at the X-ray View of Black Hole Activity in the Local Universe conference, Zurich, Switzerland |
| Oct. 2015 | Invited talk at the INTEGRAL 2015: the New High Energy Sky after a Decade of Discoveries conference, Rome, Italy |
| Sep. 2015 | Contributed talk at the <i>Demographics and environment of</i> AGN from multi-wavelength surveys conference, Chania, Greece |
| Sep. 2015 | Invited talk at the Torus 2015: the unification scheme after 30 years conference, Southampton, UK |
| Mar. 2015 | Contributed talk at the $NuSTAR$ collaboration meeting Bologna, Italy |
| Dec. 2014 | Contributed talk at the Swift: 10 Years of Discovery conference, Rome, Italy |
| July 2014 | Seminar talk at RIKEN, Saitama, Japan |
| July 2014 | Colloquium at ISAS JAXA, Tokyo, Japan |
| June 2014 | Contributed talk at the X-ray Universe 2014 conference, Dublin, Ireland |
| Mar. 2014 | Colloquium at Tokyo University, Tokyo, Japan |
| Feb. 2014 | Invited talk at the ASTRO-H HXI/SGD workshop, Hiroshima, Japan |
| Nov. 2013 | Seminar talk at IPMU, Tokyo, Japan |
| Oct. 2013 | Contributed talk at IAU Symposium 304: Multiwavelength AGN Surveys and Studies, Byurakan, Armenia |
| Oct. 2013 | Seminar talk at ISDC Data Centre for Astrophysics, Geneva, Switzerland |
| Oct. 2013 | Seminar talk at the institute for Astronomy, ETH, Zurich, Switzerland |
| Aug. 2013 | Contributed talk at East Asia AGN workshop 2013, Sapporo, Japan |
| May 2013 | Contributed talk at the 9th Serbian Conference on Spectral Line Shapes in Astrophysics, Banja Koviljaca, Serbia |

July 2012 Contributed talk at the Seyfert Galaxies: Known and the Unknown session of the 39th COSPAR Scientific Assembly, Mysore, India Contributed talk at the ASTRO-H: High-energy Astrophysics July 2012 with the Next-Generation X-ray Observatory session of the European Week of Astronomy and Space Science, Rome, Italy June 2012 Seminar talk at IPAG, Grenoble, France May 2012 Colloquium at the University of Valencia, Spain Oct. 2011 Contributed talk at the Swiss Society for Astronomy and Astrophysics meeting, Geneva, Switzerland Contributed talk at the Narrow Line Seyfert 1 galaxies Apr. 2011 and their place in the Universe workshop, Milano, Italy Nov. 2010 Colloquium at Academia Sinica Institute of Astronomy and Astrophysics (ASIAA), Taipei, Taiwan Nov. 2010 Contributed talk at the New Hard X-ray Mission Observatory (NHXM) workshop in Valencia, Spain Mar. 2010 **Invited talk** on "Black holes of all scales as seen by *INTEGRAL*" at the INTEGRAL Tutorial Session during the 40th Saas-Fee Course: Astrophysics at Very-High Energies, Les Diablerets, Switzerland July 2008 Seminar talk at the Indian Institute of Astrophysics, Bangalore, India

Schools and workshops attended

| Feb. 2016 | $ESO/NEON\ Observing\ School,$ |
|-----------|---|
| | Santiago & La Silla, Chile |
| Sep. 2014 | $AtomDB\ workshop,$ |
| | Tokyo, Japan |
| Jan. 2014 | Quasar science with Subaru/HSC: Toward the first results, |
| | Taipei, Taiwan |
| Oct. 2012 | 8th IRAM Millimeter Interferometry School, |
| | Grenoble, France |
| Mar. 2010 | 40th Saas-Fee Course: Astrophysics at Very-High Energies, |
| | Les Diablerets, Switzerland |
| July 2009 | The first school on multi-wavelength astronomy, Paris, France |
| July 2008 | The second IIA-PennState Astrostatistics School, |
| - | Vainu Bappu Observatory, India |

AWARDS

2017: Conicyt Subvencion a la Instalacion en la Academia (3 years)

2015: China-CONYCIT fellowship (2+1 years) - top ranking proposal

2012: JSPS fellowship (2 years)

- 2006: Master thesis abroad scholarship (one year)
- 2005: Erasmus scholarship (one year)
- 2004: Scholarship of the department of physics of Rome University (one year)
- 2003: Scholarship of the department of physics of Rome University (one year)
- 2002: Winner of Altrimondi, a national astronomical contest of the University of

Torino and the University of Padova for high school students (Committee: Pacini F.,

Ferrari A., Serio S.)

Observing time as P.I.

A total of 1320 ks with *NuSTAR*, 785 ks with *XMM-Newton*, 28 nights with ground-based telescopes and 27 hours with ALMA.

- ★ 2 nights with the Magellan/MagE semester 2020B
- \star 40 ks *NICER* during *NICER* AO-2
- \star 100 ks Swift during Swift AO-16
- \star 105 ks NuSTAR during XMM-Newton AO-19
- \star 105 ks XMM-Newton during AO-19
- \star 170 ks *XMM-Newton* during AO-19
- ★ 6 hours ALMA (priority A) during Cycle 7
- * 21 hours ALMA (priority B) during Cycle 7
- \star 90 ks NuSTAR during AO5
- \star 200 ks NuSTAR during AO5
- \star 50 ks NuSTAR 2019 DDT
- \star 2 nights with the Magellan/MagE semester 2019B
- \star 90 ks XMM-Newton during AO-18
- \star 100 ks NuSTAR during XMM-Newton AO-18
- \star 100 ks XMM-Newton during AO-18
- * 4 nights with the SOAR/Goodman semester 2019A
- \star 10 ks Swift/XRT 2018 DDT
- \star 50 ks NuSTAR 2018 DDT
- \star 50 ks NuSTAR 2018 DDT
- \star 55 ks XMM-Newton 2018 DDT
- \star 45 ks XMM-Newton 2018 DDT
- * 4 nights with the SOAR/Goodman semester 2018B
- ★ 1 night with the Magellan/MagE semester 2018B
- \star 4 nights with the SOAR/Goodman semester 2018A
- \star 200 ks NuSTAR during AO-4
- \star 120 ks XMM-Newton during NuSTAR AO-4
- \star 230 ks NuSTAR during AO-3
- ★ 100 ks XMM-Newton during AO-16
- \star 215 ks NuSTAR during AO-2
- \star 30 ks NuSTAR during AO-2
- * 10 nights with DuPont/B&C semester 2016A
- * 1 night with the Magellan Clay/LDSS3 during semester 2016A
- \star 100 ks Suzaku during AO-8
- ★ 12 ks Chandra during AO-12
- * 1 Ms INTEGRAL data rights on 3C 190 during AO-6
- * 1 Ms INTEGRAL data rights on IGR J21247+5058 during AO-6

FUNDINGS OBTAINED

| 2019 | China-Chile fund (2 years): 45,000 USD |
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| 2019 | ALMA-Conicyt fund (2 years): 76,000 USD |
| 2019 | Fondecyt Iniciacion (3 years): 130,000 USD |
| 2019 | NASA PI Grant: 85,000 USD |
| 2019 | NASA PI Grant: 65,000 USD |
| 2017 | CONYCIT PAI (3 years): 300,000 USD |
| 2015 | China-CONYCIT fellowship (2+1 years): 72,000-108,000 USD |
| 2012 | Grants-in-aid for scientific research (Kakenhi, 2 years): \sim 22,000 USD |
| 2012 | JSPS fellowship for foreign researchers (2 years): $\sim 80,000$ USD |
| 2012 | 39th COSPAR Scientific Assembly travel grant: 1,000 euros (~1,100 USD) |
| 2011/2012 | Swiss Astronomical Society travel grant: 2.000 CHF (~2.200 USD) |

PROFESSIONAL AFFILIATIONS

- Co-founder of the BAT AGN Spectroscopical Survey (http://www.bass-survey.com/)
- NuSTAR science team member of the: i) Extragalactic Surveys, ii) NuBAT, iii) AGN physics, iv) Obscured AGN working groups
- GATOS JWST collaboration (http://gatos.strw.leidenuniv.nl/)
- GOALS collaboration (https://www.ipac.caltech.edu/project/goals)
- CONQUEST collaboration
- \bullet Athena science team member of close environment of supermassive black holes working group
- SPICA science team member of Galaxy Evolution working group
- Theseus science team
- Chilean CTA collaboration
- LSST collaboration member of the AGN & transients working groups
- $SDSS\ V$ collaboration

SERVICE TO THE COMMUNITY

- Referee for Nature, Nature Astronomy, ApJ, ApJL, ApJS, MNRAS, A&A, Astrophysics and Space Science.
- Reviewer for NASA satellites proposals
- Reviewer for ASTROSAT proposals
- Reviewer for the Chilean National Time Allocation Committee

- Member of the China-Chile joint committee
- Reviewer for Telescope Access Program proposal (China)
- Reviewer for international funding schemes (Conicyt programs Chile; NuSTAR Archive Research Opportunity Italy; National Research, Development and Innovation Office Hungary; National Science Center Poland)
- Science Organising committee of the Active Galaxies and Quasars Reference Systems in the Gaia Era conference, Paris (2020)
- Science Organising committee of the *Dual Nuclei in Late Stage Galaxy Mergers and their Effect on Galaxy Evolution* special session at the EWASS 2019 meeting
- Co-chair of the Radio Galaxies: resolving the AGN phenomenon focus meeting at the IAU General Assembly 2018
- Co-chair of the Local hard X-ray selected AGN across the multi-wavelength spectrum international workshop at ESO/Santiago
- Science Organising committee member of the KIAA-PUC Bilateral Workshop on Active Galactic Nuclei and Galaxies (2017)
- Co-chair of the *Radio Galaxies: resolving the AGN phenomenon* session at the 41st COSPAR meeting (Istanbul, Turkey). [The COSPAR meeting was cancelled because of a coup in Turkey a few weeks before it was supposed to take place].

TEACHING AND MENTORING EXPERIENCE

| Teaching | |
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| 2021 | High-energy Astrophysics (PhD course) |
| | Kavli Institute for Astronomy and Astrophysics [scheduled] |
| 2020/Sem. 2 | General Astronomy (undergraduate course), Universidad Diego Portales |
| 2020/Sem. 1 | General Astronomy (undergraduate course), Universidad Diego Portales |
| 2020/Sem. 1 | Radiative processes in Astrophysics (PhD course), Universidad Diego Portales |
| 2019/Sem. 2 | General Astronomy (undergraduate course), Universidad Diego Portales |
| 2019/Sem. 1 | Extragalactic Astrophysics (PhD course), Universidad Diego Portales |
| 2018/Sem. 2 | General Astronomy (undergraduate course), Universidad Diego Portales |
| Postdocs | |
| 2020 | |
| 2020–now | Supervision of Dr. Matthew Temple |
| 2020 | (PhD 2020, Cambridge University, UK) |
| 2020–now | Supervision of Dr. Taiki Kawamuro |
| | (PhD 2017, Kyoto University, Japan) |
| 2019–now | Supervision of Dr. Alessia Tortosa |
| | (PhD 2017, Roma Tre, Italy) |

Students

| 2020-now | PhD thesis of Mr. Jeffrey McKaig (GMU/UDP, supervision) |
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| 2020-now | PhD thesis of Ms. Melissa Bierschenk (GMU/UDP, co-supervision) |
| 2019-now | PhD thesis of Ms. Kriti Gupta (UDP, supervision) |
| 2018-now | PhD thesis of Mr. Li Ruancun (KIAA, co-supervision) |
| 2018-now | PhD thesis of Mr. Ryan Pfeifle (George Mason Univ., co-supervision) |
| 2018 | Bachelor thesis project of Ms. Carolina Andonie (PUC; supervision) |
| 2016/2017 | Research project of Ms. Carolina Andonie (PUC; supervision) |
| 2016/2017 | Research project of Mr. Dusan Tubin (PUC; supervision) |
| 2017 | 3rd year summer project (1 month) of Ms. Carolina Andonie (PUC; supervision) |
| 2017 | 3rd year summer project (1 month) of Mr. Dusan Tubin (PUC; supervision) |
| 2016 | 2nd year summer project (1 month) of Ms. Carolina Andonie (PUC; supervision) |
| 2016 | 2nd year summer project (1 month) of Mr. Dusan Tubin (PUC; supervision) |
| 2015 | Master thesis of Mr. Francisco Ley (PUC; co-supervision) |
| 2012 | 4th year project (9 months) of Ms. Audrey Maiuro (ISDC; co-supervision) |
| 2011 | 3rd year project (3 months) of Mr. Javier Bilbao (ISDC; supervision) |
| 2010 | 3rd year project (3 months) of Mr. Lucas Grosjean (ISDC; supervision) |
| 2010 | 4th year project (9 months) of Ms. Tania Blanchard (ISDC; co-supervision) |
| 2008 | 4th year project (9 months) of Mr. Nahuel Cabral (ISDC; co-supervision) |

OUTREACH AND OTHER ACTIVITIES

I actively involved myself in several outreach activities, and gave lectures of general astronomy to elementary and middle schools in Italy. In Japan I gave lectures to high-school students within the framework of the JSPS Science Dialogue program.

To promote communication between scientists working in AGN, I led the creation, in collaboration with Prof. E. Perlman (Florida Institute of Technology) and Dr. B. Trakhtenbrot (Tel Aviv University), of the "Active Galactic Nuclei" group on Facebook, a space to discuss scientific matters related to AGN, and dedicated exclusively to researchers working in the field. The group has currently about 1200 astronomers from all over the world.

I am co-organising monthly meetings on AGN science in Santiago, which involves researchers from all Universities (PUC, UDP, U. Chile, UNAB) and from ESO, ALMA/JAO and CASSACA (see www.activegalacticnuclei.cl).

SKILLS

Languages

Italian (mother tongue)

English (fluent)

French (fluent)

Spanish (good)

Chinese (beginner)

Japanese (beginner)