

RICCARDO NANNI

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CURRENT POSITION

Department of Physics - UCSB

February 2020 - Present

Postdoctoral Researcher

Broida Hall, University of California, Santa Barbara, CA 93106-9530, USA

Supervisors: Prof. Joseph Hennawi

RESEARCH INTERESTS

- High-redshift quasars
- X-ray/optical/IR quasar properties
- Primordial super massive black holes
- Quasars evolution

EDUCATION

Department of Physics - UCSB

October 2019 - January 2020

Junior Specialist

Broida Hall, University of California, Santa Barbara, CA 93106-9530, USA

Supervisors: Prof. Joseph Hennawi

Istituto Nazionale di Astrofisica - OAS

October 2016 - September 2019

Ph.D. student

Via Piero Gobetti, 93/3, 40129 Bologna (BO), Italia

Supervisors: Dr. Roberto Gilli, Prof. Cristian Vignali

Max Planck Institute for Astronomy

May 2018 - November 2018

Ph.D. student intership

Königstuhl 17, 69117 Heidelberg, Germany

Supervisors: Dr. Fabian Walter

Alma Mater Studiorum, Università degli Studi di Bologna

October 2014 - September 2016

M.S., Astrophysics and Cosmology - Magna cum Laude

Thesis: *Study of the $z \geq 5.5$ AGN X-ray properties*

Supervisors: Prof. Cristian Vignali, Dr. Roberto Gilli

Alma Mater Studiorum, Università degli Studi di Bologna

October 2011 - September 2014

B.S., Astronomy - Magna cum Laude

Thesis: *The importance of hydrogen in astronomy*

Supervisors: Prof. Daniele Dallacasa

SOFTWARE SKILLS

Operating Systems:

Mac, Windows, Linux

Programming Languages:

Python, Fortran90, C++

Astronomy Softwares:

CIAO, HEASOFT, SAS16, DS9, MARX

Other Softwares:

TOPCAT, Latex, Pycharm

POSITION OF RESPONSIBILITY

◦ Students Tutor at University of Bologna

September 2015 - September 2016

OBSERVING EXPERIENCE

- Twelve nights with Keck I telescope in Mauna Kea using MOSFIRE
- Four nights at the NTT telescope in La Silla Observatory using SOFI and EFOSC2

FIRST NAME PUBLICATIONS

- *The deep Chandra survey in the SDSS J1030+0524 field*
Nanni, R., et al. 2020, Astronomy & Astrophysics accepted, Arxiv: 2003.13710
- *The 500 ks Chandra observation of the $z=6.31$ quasar SDSS J1030+0524*
Nanni, R., et al. 2018, Astronomy & Astrophysics, 614, A121
- *The X-ray properties of $z \sim 6$ luminous quasars*
Nanni, R. et al. 2017, Astronomy & Astrophysics, 603, A128

PUBLICATIONS AS CO-AUTHOR

- *Revealing the Accretion Physics of Supermassive Black Holes at Redshift $z \sim 7$ with Chandra and Infrared Observations*
F. Wang, X. Fan, J. Yang, C. Mazzucchelli, X.-B. Wu, J.-T. Li, E. Bañados, E. P. Farina, **R. Nanni**, Y. Ai, F. Bian, F. B. Davies, R. Decarli, J. F. Hennawi, J.-T. Schindler, B. Venemans, F. Walter, MNRAS, accepted
- *X-ray redshifts for obscured AGN: a case study in the J1030 deep field*
A. Peca, C. Vignali, R. Gilli, M. Mignoli, **R. Nanni**, S. Marchesi, M. Bolzonella, M. Brusa, N. Cappelluti, A. Comastri, G. Lanzuisi, F. Vito, The Astrophysical Journal, accepted
- *Discovery of molecular gas fueling galaxy growth in a protocluster at $z = 1.7$*
Q. D'Amato, R. Gilli, I. Prandoni, C. Vignali, M. Massardi, M. Mignoli, O. Cucciati, T. Morishita, R. Decarli, M. Brusa, F. Calura, B. Balmaverde, M. Chiaberge, E. Liuzzo, **R. Nanni**, A. Peca, A. Pensabene, P. Tozzi, and C. Norman, Astronomy & Astrophysics, 641, L6
- *Testing the paradigm: First spectroscopic evidence of a quasar-galaxy Mpc-scale association at cosmic dawn*
R. Decarli, M. Mignoli, R. Gilli, B. Balmaverde, M. Brusa, N. Cappelluti, A. Comastri, **R. Nanni**, A. Peca, A. Pensabene, E. Vanzella, C. Vignali, Astronomy & Astrophysics, 631, L10
- *Discovery of the first heavily obscured QSO candidate at $z > 6$ in a close galaxy pair*
F. Vito, W.N. Brandt, F.E. Bauer, R. Gilli, B. Luo, G. Zamorani, F. Calura, A. Comastri, C. Mazzucchelli, M. Mignoli, **R. Nanni**, O. Shemmer, C. Vignali, M. Brusa, N. Cappelluti, F. Civano, and M. Volonteri, Astronomy & Astrophysics, 628, L6
- *The X-ray properties of $z > 6$ quasars: no evident evolution of accretion physics in the first Gyr of the Universe*
F. Vito, W.N. Brandt, F.E. Bauer, F. Calura, R. Gilli, B. Luo, 10, O. Shemmer, C. Vignali, 12, G. Zamorani, M. Brusa, F. Civano, A. Comastri, and **R. Nanni**, Astronomy & Astrophysics, 630, A118
- *Discovery of a galaxy overdensity around a powerful, heavily obscured FR II radio-galaxy at $z=1.7$: star formation promoted by large scale AGN feedback?*
R. Gilli, M. Mignoli, A. Peca, **R. Nanni**, I. Prandoni, E. Liuzzo, Q. D'Amato, M. Brusa, F. Calura, G.B. Caminha, M. Chiaberge, A. Comastri, O. Cucciati, F. Cusano, P. Grandi, R. Decarli, G. Lanzuisi, F. Mannucci, E. Pinna, P. Tozzi, E. Vanzella, C. Vignali, F. Vito, B. Balmaverde, A. Citro, N. Cappelluti, G. Zamorani, and C. Norman, Astronomy & Astrophysics, 632, A26

JOURNAL REFEREE

- Monthly Notices of the Royal Astronomical Society

TALKS

- *The deep Chandra survey around $z = 6.31$ QSO J1030+0524* February 2020
National Optical Astronomy Observatory (Tucson, USA)
- *The X-ray variability of $z = 6.31$ J1030+0524* June 2019
Supermassive Black holes Environment & Evolution (Corfu, Greece)
- *The search for companions around $z \sim 6$ quasars* November 2018
Istituto Nazionale di Astrofisica (Bologna, Italy)
- *The X-ray properties of $z \geq 6$ quasars* October 2018
13th Italian Community AGN Meeting (Milano, Italy)
- *The X-ray properties of $z \geq 6$ quasars* September 2018
Max Plank Institute for Astronomy (Heidelberg, Germany)
- *The X-ray properties of $z \geq 6$ quasars* July 2018
“The early growth of super massive black holes” (Workshop, Sexten, Italy)
- *The X-ray study of the high-redshift quasars* November 2017
Istituto Nazionale di Astrofisica (Bologna, Italy)

POSTERS, CONFERENCES, SCHOOLS

- *ALMA Science and Proposals Workshop* February 2019
School (Bologna, Italy)
- *Black Hole formation and growth* February 2018
School (Saas-Fee, Switzerland)
- *First Astrostatistic School* July 2017
School Brera (Milano, Italy)
- *Galaxy Formation and Evolution in a Cosmological Context* May 2017
School AKSS (Spetses, Greece)
- Poster: *The X-ray study of the high-redshift quasars* September 2016
12th Italian Community AGN Meeting (Napoli, Italy)

OUTREACHES

- Main speaker for the *Monthly Conference in Specola*: “The astronomy of the ancient Celts” (Bologna, Italy) December 2018
- Volunteer at “*The Fall of Cassini Event*” (Bologna, Italy) September 2017
- Volunteer at “*European Researchers’ Night*” (Bologna, Italy) September 2017

◦ Volunteer at Scuola Media Guercino: *“The Solar eclipse”* (Bologna, Italy)

March 2015

LANGUAGES

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| Italian: | Native |
| English: | Fluent |
| French: | Elementary |