

RICCARDO NANNI

Leiden Observatory - University of Leiden
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CURRENT POSITION

Leiden Observatory

June 2021 - Present

Postdoctoral Researcher
Niels Bohrweg 2, 2333 CA, Leiden, The Netherlands
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

February 2020 - May 2021

Postdoctoral Researcher
Broida Hall, University of California, Santa Barbara, CA 93106-9530, USA
Supervisors: Prof. Joseph Hennawi

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 internship
Konigstuhl 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:

PypeIt, CIAO, HEASOFT, SAS16, DS9

Other Softwares:

TOPCAT, Latex, Pycharm

POSITION OF RESPONSIBILITY

◦ Students Tutor at University of Bologna

September 2015 - September 2016

OBSERVING EXPERIENCE

◦ Fourteen nights with Keck I telescope in Mauna Kea using MOSFIRE

◦ Seven 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

- *Probabilistic target selection of the highest redshift quasars* *June 2021*
European Astronomical Society Annual Meeting (Leiden, The Netherlands)
- *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)

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

Italian: Native
English: Fluent
French: Elementary