

CURRICULUM VITAE

PERSONAL INFORMATION

Name Roberto DECARLI
German Address Klausenpfad 22
Heidelberg, D-69121, Germany
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Telephone +49 (0)6221 528368 (office)
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Website www.mpia.de/homes/decarli/
Nationality Italian
Date of birth May, 25, 1982

JOB CAREER

- ▷ Period July 2017–
 - Current position **Permanent staff researcher** at the Istituto Nazionale di Astrofisica (INAF) – Osservatorio Astronomico di Bologna (OAB).
INAF – OAB
Via Gobetti 93/3
40129 Bologna, Italy
 - Institute

- ▷ Period May 2017–June 2017
 - Position **Post-doc** at the Max Planck Institut für Astronomie in the group of Dr. F. Walter. Funded by the European Research Council granted project “ASTRODAWN” (PI: F. Walter).

- ▷ Period Feb. 2012–April 2017
 - Position **Post-doc** at the Max Planck Institut für Astronomie in the group of Dr. F. Walter. Funded by the German Research Foundation (Deutsche Forschungsgemeinschaft, project “The Physical Conditions of the ISM in High-Redshift Galaxies”, SPP 1573).

- ▷ Period Feb. 2011–Jan. 2012
 - Position **Post-doc** at the Max Planck Institut für Astronomie in the group of Dr. F. Walter. Funded by the German national research centre for aeronautics and space (DLR, project FKZ 50 OR 1104).

- ▷ Period Nov. 2009–Jan. 2011
 - Position **Post-doc** at the Max Planck Institut für Astronomie in the group of Dr. F. Walter

- Institute

Max Planck Institut für Astronomie
Königstuhl 17
69117 Heidelberg, Germany

EDUCATION

- ▷ Period

2006–2009

- Acquired qualification

“**Dottorato di ricerca**” (*Ph.D. equivalent*) in Astronomy and Astrophysics

- Institute

Dipartimento di Fisica e Matematica,
Università degli Studi dell’Insubria
via Valleggio 11, Como, I-22100, Italy

- Title of the PhD Thesis

The redshift dependence of the $M_{\text{BH}}-M_{\text{host}}$ relation in quasars

- Supervisor

prof. A. Treves

- PhD defense date

October, 28, 2009

- ▷ Period

2004–2006

- Acquired qualifications

“**Laurea specialistica**” (*second level degree*) in Astrophysics and Space Physics

- Institute

Università degli Studi di Milano–Bicocca

- Principal subjects

Optical astronomy, high-energy astrophysics, galactic dynamics

- Minor subjects

Cosmology, radioastronomy, general relativity, quantum physics

- Thesis

“Connessione fra buchi neri attivi e massa dinamica in galassie a spirale.” (*Connection between active black holes and dynamical mass in spiral galaxies*). Supervisors: prof. G. Gavazzi, M. Colpi

- Grade

Grade 110/110 *cum laude*

- ▷ Period

2001–2004

- Acquired qualification

“**Laurea di primo livello**” (*first level degree*) in Physics

- Institute

Università degli Studi di Milano–Bicocca

- Thesis

“Canali di informazione astrofisica e trasparenza atmosferica” (*Astrophysical information channels and atmospheric transparency*). Supervisor: prof. G. Sironi

- Grade

Grade 108/110

- ▷ Period

1996–2001

- Acquired qualifications

“Diploma di Maturità classica” (*High school diploma*)

- Graduate school

Liceo E. Majorana, Desio, MI – Italy

RESEARCH AREA

- Main research interests
 - Astronomy at (sub-)mm wavelengths. Star formation in high-z galaxies and quasar hosts. Physics of the interstellar medium at high redshift.
 - Supermassive black holes and their joint evolution with host galaxies. Phenomenology of Active Galactic Nuclei. Quasars and Quasi Stellar Objects. Massive black hole binaries.

- Techniques
 - Interferometry at mm wavelengths.
 - Stacking analysis. Statistics.
 - Optical and near-infrared imaging. Near-infrared imaging with Adaptive Optics.
 - Optical and near-infrared long-slit spectroscopy.

- Observational experience
 - Visitor Astronomer** in the following observing runs:
 - January 20-24, 2017 (ESO/NTT – La Silla)
 - January 30 - February 4, 2016 (ESO/NTT – La Silla)
 - February 19-23, 2015 (ESO/NTT – La Silla)
 - March 2 - March 6, 2014 (ESO/NTT – La Silla)
 - June 16 - July 1, 2012 (ESO/NTT – La Silla)
 - February, 16-19, 2012 (ESO/NTT – La Silla)
 - March, 9-15, 2011 (3.5m Telescope – Calar Alto)
 - February, 24-25, 2011 (ESO/VLT – Paranal)
 - March, 24-27, 2009 (Cima Ekar Telescope – Asiago)
 - October, 17-19, 2007 (Nordic Optical Telescope – La Palma).
 - September, 17-20, 2007 (Cima Ekar Telescope – Asiago)
 - September, 9-12, 2007 (ESO/3.6m Telescope – La Silla)
 - March, 23-25, 2007 (ESO/3.6m Telescope – La Silla)
 - February, 17-20, 2007 (Cima Ekar Telescope – Asiago)
 - December, 15-18, 2006 (Cima Ekar Telescope – Asiago)
 - February, 18-21, 2005 (Loiano Telescope)

o Successful Service Mode proposals (as Principal Investigator)

ALMA:

- Director's Discretionary Time project "A detailed image of the first merger", PI: R. Decarli, Co-Is: F. Walter, E.P. Farina, E. Bañados, B. Venemans, C. Mazzucchelli, X. Fan, M. Strauss, C. Carilli, D. Riechers, R. Wang, Y. Yang – 1.9 hr, Cycle 4
- "A comprehensive study of the interstellar medium 830 Myr after the Big Bang", PI: R. Decarli, Co-Is: F. Walter, E.P. Farina, E. Bañados, B. Venemans, C. Mazzucchelli, X. Fan, M. Strauss, C. Carilli, D. Riechers, R. Wang, Y. Yang – 7.1 hr, Cycle 4

IRAM PdBI/NOEMA:

- "Detecting the [NII] 205 micron line at the highest redshifts", PIs: R. Decarli & C. Ferkinhoff, Co-Is: F. Walter, B. Venemans, E. Bañados, E.P. Farina – 8.7 tracks, Period: winter 2016
- "The birth of the giant: Pristine gas accretion and host galaxy assembly in a QSO at $z \sim 6.6$ ", PI: R. Decarli, Co-Is: F. Walter, B. Venemans, E. Bañados, E.P. Farina – 2.5 tracks, Period: winter 2016
- "The formation of the first QSOs", PI: R. Decarli, Co-Is: F. Walter, B. Venemans, E. Bañados, E.P. Farina, D. Riechers – 38.5 hr, Period: summer 2016
- "The birth of the giant: Pristine gas accretion and host galaxy assembly in a QSO at $z \sim 6.6$ ", PI: R. Decarli, Co-Is: F. Walter, B. Venemans, E. Bañados, E.P. Farina – 0.5 track, DDT, Period: winter 2015
- "The ISM in QSOs at the epoch of reionization", PI: R. Decarli, Co-Is: F. Walter, B. Venemans, E. Bañados, E.P. Farina, D. Riechers – 5 tracks, Period: winter 2015
- "Measuring CO excitation in a CO(1-0)-selected sample at $z \sim 2.4$ ", PI: R. Decarli, Co-Is: D. Riechers, F. Walter, C. Sharon, R. Pavesi – 4 tracks, Period: summer 2015
- "The interstellar medium of a [CII]-bright QSO host galaxy at $z=6.5$ ", PI: R. Decarli, Co-Is: E. Bañados, F. Walter, B. Venemans – 2 tracks, Period: summer 2015
- "A gas-rich 'dark' galaxy at the peak of galaxy assembly", PI: R. Decarli, Co-Is: F. Walter, C. Carilli, D. Riechers, R. Neri – 4 tracks, Period: winter 2014-15; summer 2015
- "A molecular scan in the Hubble Deep Field North: 2mm follow-up observations", PI: R. Decarli, Co-Is: F. Walter, D. Riechers, C. Carilli, R. Neri, P. Cox – 6 tracks, Period: winter 2013-14; continued in summer 2014
- "A survey of ionized nitrogen ([NII]) at high redshift", PI: R. Decarli, Co-Is: F. Walter, R. Maiolino, C. Carilli, D. Riechers, F. Bertoldi, A. Weiss, P. Cox, R. Neri – 5 tracks, Period: winter 2011-12; continued in winter 2012-13
- "J0927+2943: A massive BH binary or a galaxy collision?", PI: R. Decarli, Co-Is: F. Walter, M. Dotti, M. Volonteri – 2+1 tracks, Period: summer 2012; continued in winter 2012-13 and summer 2013
- "A census of [CI] in high-z galaxies with available [CII] observations", PI: R. Decarli, Co-Is: F. Walter, D. Riechers, A. Weiß, F. Bertoldi, C. Carilli, C. Ferkinhoff, B. Groves, R. Neri – 9 tracks, Period: summer 2013 + continued in winter 2013-14
- Director's Discretionary Time project "Redshift measurement of a blind, high-z ($z=2.071?$) CO detection in the HDF-N.", PI: R. Decarli, Co-Is: F. Walter, D. Riechers, C. Carilli, R. Neri, P. Cox – 1+2 tracks, Period: summer 2013

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Spitzer:

- “A Spitzer legacy view on high-z QSOs”, PI: R. Decarli, Co-Is: X. Fan, I. McGreer, L. Jiang, D. Riechers, E. Bañados, B. Venemans, F. Walter, E.P. Farina, C. Mazzucchelli – 30 hr in Cycle 11

ESO Very Large Telescope (Paranal, Chile):

- “First insight onto the build-up of QSOs at the cosmic dawn: a MUSE and ALMA synergy”, PI: R. Decarli, co-Is: E.P. Farina, C. Mazzucchelli, B. Venemans, F. Walter, E. Bañados – 4 hr in Service Mode, DDT, Aug 2016
- “Quasar probing quasars: exploring the mechanisms of quasar ignition”, PI: R. Decarli, Co-Is: R. Falomo, A. Treves, R. Scarpa, J. Kotilainen – 24 hours in Service Mode, Period Mar.2010-Sep.2010
- “The restframe UV-to-optical spectra of high-z quasars: a first NIR systematic study”, PI: R. Decarli, Co-Is: A. Treves, R. Falomo, M. Labita – 7 nights in Service Mode, Periods Oct.2008-Sep.2009
- “The nature of the massive black hole binary system in the quasar SDSS J1536+0441”, PI: R. Decarli, Co-Is: M. Dotti, A. Treves, R. Falomo, M. Colpi, J. Kotilainen – 7 nights in Service Mode, Periods Apr.-May.2009

ESO 2.2m Telescope (La Silla, Chile):

- “Imaging follow-up observations of $z \sim 7$ quasar candidates from PS1”, PI: R. Decarli, Co-Is: F. Walter, E. Morganson, G. De Rosa, H.-W. Rix, X. Fan, J. Greiner – 45 nights in Service Mode, Period: 2011-14

Calar Alto Observatory (Spain):

- “An intermediate mass BH in NGC 2276?”, PI: R. Decarli, Co-Is: A. Wolter – 2 hr in Service Mode (DDT), Period Oct 2015
- “QQQ1516: A new, physically bound quasar triplet?”, PI: R. Decarli, Co-Is: E.P.Farina, C. Montuori, M. Fumagalli – 4 hr in Service Mode (DDT), Period Jul 2012
- “Spectroscopic follow-up of high-z BH binary candidates”, PI: R. Decarli, Co-Is: P. Tsalbantza, D.W. Hogg, M. Dotti, C. Montuori – 5 nights in Service Mode, Period 2012-13
- “Imaging follow-up observations of $z \sim 7$ quasar candidates from PS1”, PI: R. Decarli, Co-Is: F. Walter, B. Venemans, E. Bañados, E. Morganson, G. De Rosa, H.-W. Rix, X. Fan – 40 nights in Service Mode, Period: 2011-12
- “Spectroscopic follow-up observations of $z \sim 7$ quasar candidates from PS1”, PI: R. Decarli, Co-Is: F. Walter, E. Morganson, G. De Rosa, H.-W. Rix, X. Fan – 20 nights in Service Mode, Period: 2011-12
- “A systematic search for massive black hole binaries – spectroscopy”, PI: R. Decarli, Co-Is: P. Tsalbantza, D.W. Hogg, M. Dotti – 3 nights in Service Mode, Period Mar 2012
- “A systematic search for massive black hole binaries – imaging”, PI: R. Decarli, Co-Is: P. Tsalbantza, D.W. Hogg, M. Dotti – 6 nights in Service Mode, Period Apr 2011-Apr 2012 and Dec 2014

Telescopio Nazionale Galileo (La Palma, Spain):

- “The low-mass end of the MBH-Lbulge relation.”, PI: R. Decarli, Co-Is: R. Falomo, M. Labita, A. Treves, R. Scarpa, J. Kotilainen – 30 hours in Service Mode, Period 2008 May-Nov

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Cima Ekar 1.82m Telescope (Asiago, Italy):

- “Supermassive black holes and their host galaxies”, PI: R. Decarli, Co-Is: M. Labita, A. Treves, M. Dotti, R. Falomo – 5 nights in Service Mode, Period Nov.2007-Apr.2008
- “A search for pairs of bright quasars”, PI: R. Decarli Co-Is: M. Labita, A. Treves, R. Falomo – 4 nights in Service Mode, Period May 2008-Oct.2008
- “Supermassive black holes and their host galaxies”, PI: R. Decarli, Co-Is: M. Labita, A. Veronesi, A. Treves, M. Dotti, R. Falomo – 5 nights in Service Mode, Period May 2008-Oct.2008

○ Experience in archive data querying

Wide experience in data retrieving from the ESO, ALMA, SDSS, 2MASS, UKIDSS, WISE, and HST archives. Excellent practise with NED, SIMBAD and VizieR services.

PUBLICATIONS

- Refereed papers

- 91 - Decarli R., et al. 2017, Nature, in press: *Rapidly star-forming galaxies adjacent to quasars at $z > 6$.*
- 90 - Swinbank A.M., et al. 2017, MNRAS, 467, 3140: *Angular momentum evolution of galaxies over the past 10 Gyr: a MUSE and KMOS dynamical survey of 400 star-forming galaxies from $z = 0.3$ to 1.7*
- 89 - Tang J.J., Goto T., Ohyama Y., et al. 2017, MNRAS, 466, 4568: *A quasar discovered at redshift 6.6 from Pan-STARRS1*
- 88 - Popping G., Decarli R., Man A.W.S., et al. 2017 (arXiv:1703.05764): *ALMA reveals starburst-like interstellar medium conditions in a compact star-forming galaxy at $z \sim 2$ using [C I] and CO.*
- 87 - Venemans B.P., Walter F., Decarli R., et al. 2017, ApJ, 837, 146: *The Compact, ~ 1 kpc Host Galaxy of a Quasar at a Redshift of 7.1.*
- 86 - Scoville N., et al. 2017, ApJ, 836, 66: *ALMA resolves the nuclear disks of Arp220*
- 85 - Mazzucchelli C., Bañados E., Decarli R., et al. 2017, ApJ, 834, 83: *No Overdensity of Lyman-Alpha Emitting Galaxies around a Quasar at $z \sim 5.7$.*
- 84 - Chen S.-F.S., Simcoe R.A., Torrey P., et al. 2016 (arXiv:1612.02829): *Mg II Absorption at $2 < z < 7$ with Magellan/FIRE, III. Full Statistics of Absorption Towards 100 High-Redshift QSOs*
- 83 - Carilli C.L., Chluba J., Decarli R., et al. 2016, ApJ, 833, 73: *ALMA Spectroscopic Survey in the Hubble Ultra Deep Field: implications for spectral line intensity mapping at millimeter wavelengths and CMB spectral distortions*
- 82 - Bouwens R., Aravena M., Decarli R., et al. 2016, ApJ, 833, 72: *ALMA Spectroscopic Survey in the Hubble Ultra Deep Field: The Infrared Excess of UV-selected $z=2-10$ galaxies as a function of UV-continuum Slope and Stellar Mass*
- 81 - Aravena M., Decarli R., Walter F., et al. 2016, ApJ, 833, 71: *ALMA Spectroscopic Survey in the Hubble Ultra Deep Field: Search for [C II] line and dust emission in $6 < z < 8$ galaxies*
- 80 - Decarli R., Walter F., Aravena M., et al. 2016, ApJ, 833, 70: *ALMA Spectroscopic Survey in the Hubble Ultra Deep Field: Molecular gas reservoirs in high-redshift galaxies*
- 79 - Decarli R., Walter F., Aravena M., et al. 2016, ApJ, 833, 69: *ALMA spectroscopic survey in the Hubble Ultra Deep Field: CO luminosity functions and the evolution of the cosmic density of molecular gas*

- 78 - Aravena M., Decarli R., Walter F., et al. 2016, ApJ, 833, 68: *ALMA spectroscopic survey in the Hubble Ultra Deep Field: Continuum number counts, resolved 1.2-mm extragalactic background, and properties of the faintest dusty star forming galaxies*
- 77 - Walter F., Decarli R., Aravena M., et al. 2016, ApJ, 833, 67: *ALMA Spectroscopic Survey in the Hubble Ultra Deep Field: Survey Description*
- 76 - Bañados E., Venemans E.P., Decarli R., et al. 2016, ApJ Suppl., 227, 11: *The Pan-STARRS1 distant $z > 5.6$ quasar survey: more than 100 quasars within the first Gyr of the universe*
- 75 - Lindroos L., Knudsen K.K., Fan L., et al. 2016, MNRAS, 462, 1192: *Estimating sizes of faint, distant galaxies in the submillimetre regime*
- 75 - Jones G.C., et al. 2016, ApJ, 830, 63: *New Constraints on the Molecular Gas in the Prototypical HyLIRGs BRI1202-0725 and BRI1335-0417*
- 74 - Popping G., van Kampen E., Decarli R., Spaans M., Somerville R.S., Trager S.C. 2016, MNRAS, 461, 93: *Sub-mm Emission Line Deep Fields: CO and [CII] Luminosity Functions out to $z = 6$*
- 73 - Farina E.P., Fumagalli M., Decarli R., Fanidakis N. 2016, MNRAS, 455, 618: *The cluster-scale environment of PKS 2155-304*
- 72 - Venemans B.P., et al. 2016, ApJ, 816, 37: *Bright [C ii] and Dust Emission in Three $z > 6.6$ Quasar Host Galaxies Observed by ALMA*
- 71 - Venemans B.P., et al. 2015, MNRAS, 453, 2259: *First discoveries of $z \sim 6$ quasars with the Kilo-Degree Survey and VISTA Kilo-Degree Infrared Galaxy survey*
- 70 - Dwek E., et al. 2015, ApJ, 813, 119: *Submillimeter Observations of CLASH 2882 and the Evolution of Dust in this Galaxy*
- 69 - De Rosa A., et al. 2015, MNRAS, 453, 214: *Multiple AGN in the crowded field of the compact group SDSS J0959+1259*
- 68 - Leroy A.K., Walter F., Decarli R., et al. 2015, ApJ, 811, 15: *Faint CO Line Wings in Four Star-forming (Ultra)luminous Infrared Galaxies*
- 67 - Bañados E., Decarli R., et al. 2015, ApJ, 805, L8: *Bright [CII] $158\mu\text{m}$ emission in a quasar host galaxy at $z=6.54$*
- 66 - da Cunha E., et al. 2015, ApJ, 806, 110: *An ALMA survey of Sub-millimeter Galaxies in the Extended Chandra Deep Field South: Physical properties derived from ultraviolet-to-radio modelling*
- 65 - Bañados E., et al. 2015, ApJ, 804, 118: *Constraining the radio-loud fraction of quasars at $z > 5.5$*
- 64 - Venemans B.P., Bañados E., Decarli R., et al. 2015, ApJ, 801, L11: *The Identification of Z-dropouts in Pan-STARRS1: Three Quasars at $6.5 < z < 6.7$*
- 63 - Lentati L., Wagg J., Carilli C.L., et al. 2015, ApJ, 800, 67: *COLDz: Karl G. Jansky Very Large Array Discovery of a Gas-rich Galaxy in COSMOS*

- 62 - Hodge J.A., Riechers D., Decarli R., et al. 2015, ApJ, 798, L18: *The Kiloparsec-scale Star Formation Law at Redshift 4: Widespread, Highly Efficient Star Formation in the Dust-obscured Starburst Galaxy GN20*
- 61 - Decarli R., Dotti M., Mazzucchelli C., Montuori C., Volonteri M. 2014, MNRAS, 445, 1558: *New insights on the recoiling/binary black hole candidate J0927+2943 via molecular gas observations*
- 60 - Sanghvi J., Kotilainen J.K., Falomo R., Decarli R., Karhunen K., Uslenghi M. 2014, MNRAS, 445, 1261: *The black hole-host galaxy relation for very low mass quasars*
- 59 - Lentati L., Carilli C., Alexander P., Walter F., Decarli R. 2014, MNRAS, 443, 3741: *A Bayesian blind survey for cold molecular gas in the Universe*
- 58 - Ota K., Walter F., Ohta K., Hatsukade B., Carilli C.L., et al. 2014, ApJ, 792, 34: *ALMA observations of 158 μ m [CII] line and dust continuum of a $z=7$ normally star-forming galaxy in the epoch of reionization*
- 57 - De Rosa G., Venemans B.P., Decarli R., Gennaro M., Simcoe R.A., et al. 2014, ApJ, 790, 145: *Black hole mass estimates and emission line properties of a sample of redshift $z > 6.5$ quasars*
- 56 - Staguhn J.G., Kovács A., Arendt R.G., Benford D.J., Decarli R., et al. 2014, ApJ, 790, 77: *The GISMO two-millimeter deep field in GOODS-N*
- 55 - Bañados E., Venemans B.P., Morganson E., Decarli R., Walter F., et al. 2014, AJ, 148, 14: *Discovery of eight $z \sim 6$ quasars from Pan-STARRS1*
- 54 - Farina E.P., Falomo R., Scarpa R., Decarli R., et al. 2014, MNRAS, 441, 886: *The extent of the Mg II absorbing circumgalactic medium of quasars*
- 53 - Lusso E., Decarli R., Dotti M., et al. 2014, MNRAS, 441, 316: *The nature of massive black hole binary candidates - II. Spectral energy distribution atlas*
- 52 - Yang Y., Walter F., Decarli R., et al. 2014, ApJ, 784, 171: *Pinpointing the Molecular Gas within an Ly α Blob at $z \sim 2.7$*
- 51 - González-López J., Riechers D.A., Decarli R., et al. 2014, ApJ, 784, 99: *Search for [C II] Emission in $z = 6.5-11$ Star-forming Galaxies*
- 50 - Swinbank A.M., Simpson J.M., Smail I., et al. 2014, MNRAS, 438, 1267: *An ALMA survey of sub-millimetre Galaxies in the Extended Chandra Deep Field South: the far-infrared properties of SMGs*
- 49 - Decarli R., Walter F., Carilli C., et al. 2014, ApJ, 782, L17: *Varying [C II]/[N II] Line Ratios in the Interacting System BR1202-0725 at $z = 4.7$*
- 48 - Walter F., Decarli R., Sargent M., et al. 2014, ApJ, 782, 79: *A Molecular Line Scan in the Hubble Deep Field North: Constraints on the CO Luminosity Function and the Cosmic H₂ Density*

- 47 - Decarli R., Walter F., Carilli C., et al. 2014, ApJ, 782, 78: *A Molecular Line Scan in the Hubble Deep Field North*
- 46 - Decarli R., Smail I., Walter F., et al. 2014, ApJ, 780, 115: *An ALMA Survey of Sub-millimeter Galaxies in the Extended Chandra Deep Field South: Sub-millimeter Properties of Color-selected Galaxies*
- 45 - Schnülle K., Pott J.-U., Rix H.-W., Decarli R., Peterson B. M., Vacca W., 2013, A&A, 557, L13: *Dust physics in the nucleus of NGC 4151*
- 44 - Decarli R., Dotti M., Fumagalli M., et al. 2013, MNRAS, 433, 1492: *The nature of massive black hole binary candidates – I. Spectral properties and evolution*
- 43 - Alaghband-Zadeh S., Chapman S.C., Swinbank A.M., et al. 2013, MNRAS, 435, 1493: *Using [CII] to probe the interstellar medium in $z \sim 2.5$ sub-millimeter galaxies*
- 42 - Farina E.P., Montuori C., Decarli R., Fumagalli M., 2013, MNRAS, 431, 1019: *Caught in the act: discovery of a physical quasar triplet*
- 41 - Hodge J.A., Karim A., Smail I., et al., 2013, ApJ, 768, 91: *An ALMA survey of submillimeter galaxies in the Extended Chandra Deep Field South: Source catalog and multiplicity*
- 40 - Farina E.P., Falomo R., Treves A., Decarli R., et al., 2013, Ap&SS, 345, 199: *Reclassification of the nearest quasar pair candidate: SDSS J15244+3032–RXS J15244+3032*
- 39 - Landoni M., Falomo R., Treves A., et al. 2013, AJ, 145, 114: *ESO Very Large Telescope optical spectroscopy of BL Lacertae objects. IV. New spectra and properties of the full sample*
- 38 - da Cunha E., Groves B., Walter F., Decarli R., et al. 2013 ApJ, 766, 13: *On the effect of the cosmic microwave background in high-redshift (sub-)millimeter observations*
- 37 - da Cunha E., Walter F., Decarli R., et al. 2013, ApJ, 765, 9: *Empirical predictions for (sub-)millimeter line and continuum deep fields*
- 36 - Farina E.P., Falomo R., Decarli R., Treves A., Kotilainen J.K., 2013, MNRAS, 429, 1267: *On the cool gaseous haloes of quasars*
- 35 - Montuori C., Dotti M., Haardt F., et al., 2012, MNRAS, 425, 1633: *Search for sub-parsec massive binary black holes through line diagnosis: II*
- 34 - Decarli R., Walter F., Yang Y., et al., 2012, ApJ, 756, 150: *Hubble Space Telescope narrow-band search for extended Ly α emission around two $z > 6$ quasars*
- 33 - Farina E.P., Decarli R., Falomo R., Treves A., Raiteri C.M., 2012, MNRAS, 424, 393: *The optical spectrum of PKS 1222+216 and its black hole mass*
- 32 - Landoni M., Falomo R., Treves A., et al., 2012, A&A, 543, 116: *On the redshift of the bright BL Lacertae object PKS 0048-097*
- 31 - Walter F., Decarli R., Carilli C., et al., 2012, Nature, 486, 233: *An intense starburst in a galaxy overdensity at $z=5.2$*
- 30 - Decarli R., Walter F., Neri R., et al., 2012, ApJ, 752, 2: *Ionized nitrogen at high redshift*

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- 29 - Venemans B.P., McMahon R.G., Walter F., Decarli R., Cox P., et al., 2012, ApJ 751, L25: *Detection of atomic carbon [CII] 158 micron and dust emission from a $z=7.1$ quasar host galaxy*
- 28 - Morganson E., De Rosa G., Decarli R., Walter F., Chambers K., et al., 2012, AJ, 143, 142: *The First High Redshift Quasar from Pan-STARRS*
- 27 - Portinari L., Kotilainen J.K., Falomo R., Decarli R., 2012, MNRAS, 420, 732: *On the cosmological evolution of the black hole-host galaxy relation in quasars*
- 26 - Yang Y., Decarli R., Dannerbauer H., Walter F., Weiss A., et al., 2012, ApJ, 744, 178: *Constraining Dust and Molecular Gas Properties in Ly α Blobs at $z \sim 3$*
- 25 - Decarli R., Falomo R., Kotilainen J.K., Hyvönen T., Uslenghi M., Treves A., 2012, Ad.Astr., E18: *The Low-Mass End of the MBH/Mhost Relation in Quasars*
- 24 - Dotti M., Sesana A., Decarli R., 2012, Ad.Astr., E3: *Massive Black Hole Binaries: Dynamical Evolution and Observational Signatures*
- 23 - De Rosa G., Decarli R., Walter F., Fan X., Jiang L., Kurk J., Pasquali A., Rix H.W., 2011, ApJ, 739, 56: *Evidence for Non-evolving FeII/MgII Ratios in Rapidly Accreting $z \sim 6$ QSOs*
- 22 - Tsalmantza P., Decarli R., Dotti M., Hogg D.W., 2011, ApJ, 738, 20: *A Systematic Search for Massive Black Hole Binaries in the Sloan Digital Sky Survey Spectroscopic Sample*
- 21 - Calderone G., Foschini L., Ghisellini G., Colpi M., Maraschi L., Tavecchio F., Decarli R., Tagliaferri G., 2011, MNRAS, 413, 2365: *γ -ray variability of radio-loud narrow-line Seyfert 1 galaxies*
- 20 - Decarli R., Dotti M. & Treves A., 2011, MNRAS, 413, 39: *Geometry and inclination of the broad-line region in blazars*
- 19 - Montuori C., et al., 2011, MNRAS, 412, 26: *Search for sub-parsec massive binary black holes through line diagnosis*
- 18 - Walter F., et al., 2011, ApJ, 730, 18: *A Survey of Atomic Carbon at High Redshift*
- 17 - Decarli R., et al., 2010, ApJ, 720, L93: *The Peculiar Optical Spectrum of 4C+22.25: Imprint of a Massive Black Hole Binary?*
- 16 - Decarli R., et al., 2010, MNRAS, 402, 2453: *The quasar $M_{\text{BH}}-M_{\text{host}}$ relation through Cosmic Time. II – Evidence for evolution from $z = 3$ to the present age*
- 15 - Decarli R., et al., 2010, MNRAS, 402, 2441: *The quasar $M_{\text{BH}}-M_{\text{host}}$ relation through Cosmic Time. I – Dataset and black hole masses*
- 14 - Decarli R., et al., 2010, A&A, 511, 27: *A quasar companion to the puzzling quasar SDSS J0927+2943*
- 13 - Labita M., Decarli R., Treves A., & Falomo R., 2009, MNRAS, 399, 2099: *Downsizing of supermassive black holes from the SDSS quasar survey (II). Extension to $z \sim 4$*
- 12 - Kotilainen J.K., Falomo R., Decarli R., Treves A., Uslenghi M., & Scarpa R., 2009, ApJ, 703, 1663: *The properties of quasar hosts at the peak of the quasar activity*

- 11 - Dotti M., Montuori C., Decarli R., Volonteri M., *et al.*, 2009, MNRAS, 398, L73: *SDSSJ092712.65+294344.0: a candidate massive black hole binary*
- 10 - Decarli R., Dotti M., Falomo R., Treves A., Colpi M., Kotilainen J.K., Montuori C., & Uslenghi M., 2009, ApJ, 703, L76: *Probing the nature of the massive black hole binary candidate SDSS J1536+0441*
- 9 - Decarli R., Reynolds M.T., & Dotti M., 2009, MNRAS, 397, 458: *A photometric study of the field around the candidate recoiling/binary black hole SDSS J092712.65+294344.0*
- 8 - Labita M., Decarli R., Treves A., Falomo R., 2009, MNRAS, 396, 1537: *Downsizing of black holes from the SDSS quasar survey*
- 7 - Decarli R., Treves A., & Falomo R., 2009, MNRAS, 396, L31: *A new apparent quasar pair: Q2225-403A,B*
- 6 - Decarli R., Falomo R., Kotilainen J., Labita M., Scarpa R., & Treves A., 2009, The Open Astronomy Journal, 2, 23: *Re-Classification of the Alleged Quasar Q0045-3337*
- 5 - Sbarufatti B., Ciprini S., Kotilainen J., Decarli R., *et al.*, 2009, AJ, 137, 337: *ESO VLT optical spectroscopy of BL Lacertae objects. III. An extension of the sample*
- 4 - Decarli R., Labita M., Treves A., Falomo R., 2008, MNRAS, 387, 1237: *On the geometry of broad emission region in quasars*
- 3 - Decarli R., Dotti M., Fontana M., Haardt F., 2008, MNRAS Letters, 386, 15: *Are the black hole masses in narrow-line Seyfert 1 galaxies actually small?*
- 2 - Cortese L., Boselli A., Franzetti P., Decarli R., Gavazzi G., Boissier S., Buat V., 2008, MNRAS, 386, 1157: *Ultraviolet dust attenuation in star-forming galaxies - II. Calibrating the $A(UV)$ versus L_{TIR}/L_{UV} relation*
- 1 - Decarli R., Gavazzi G., Arosio I., Cortese L., Boselli A., Bonfanti C., Colpi M., 2007, MNRAS, 381, 136: *The census of nuclear activity of late-type galaxies in the Virgo cluster*

REFEREEING

Referee of scientific publications in Nature, Science, the Astrophysical Journal, the Astrophysical Journal Letters, the Monthly Notices of the Royal Astronomical Society, Astronomy & Astrophysics, Astronomische Nachrichten.

INVITED TALKS

○ Conferences, workshops

- “IV Workshop sull’Astronomia Millimetrica in Italia”, Bologna (Italy), 2017, November 7-10.
- “The transient and variable sky in the era of gravitational wave astronomy”, Newport Pagnell (UK), 2016, October 26-27 [canceled].
- “Physical Characteristics of Normal Galaxies at $z > 2$ ”, Leiden (Netherlands), 2016, October 17-21.
- “100th national conference of the Italian Physics Society”, Pisa (Italy), 2014, September 22-26.
- “Role of hydrogen in the evolution of galaxies” conference, Kuching (Malaysia), 2014, September 15-19.
- “European Week of Astronomy and Space Science”, Turku (Finland), 2013, July 8-12.
- “Single and double black holes in galaxies”, Ann Arbor, MI (USA), 2011, August 22-25.

CONFERENCES

○ Talks at conferences

- “Illuminating the dark ages: quasars and galaxies in the reionization epoch”, Heidelberg (Germany), 2016, June 27 - July 1.
- “Molecular gas in galactic environments”, Charlottesville (VA, USA), 2016, April 4-7.
- “Gas, dust, and star-formation in Galaxies from the Local to Far Universe”, Chania (Greece), 2015, May 25-29.
- “ALMA Community Days”, Bonn (Germany), 2015, March 25-26.
- “Transformational Science in the ALMA Era: Multi-Wavelength Studies of Galaxy Evolution”, Charlottesville (VA, USA), 2014, August 4-7.
- “Galaxies in 3D across the universe”, Vienna (Austria), 2014, July 7-11.
- “Colorful galaxies: A conference for Peppo Gavazzi’s 65th birthday”, Menaggio (Italy), 2014, April 28-30.
- “3D2014: Gas and stars in galaxies: A multi-wavelength 3D perspective”, Garching (Germany), 2014, March 10-14.
- “Galaxy evolution over 5 decades”, Cambridge (UK), 2013, September 3-6.
- “Phases of the ISM”, Heidelberg (Germany), 2013, July 29-August 1.
- “Far-infrared emission as window to study the formation of galaxies, black holes and dust in the young universe”, Ringberg castle (Germany), 2013, May 13-17.
- “Interacting galaxies and binary quasars”, Trieste (Italy), 2012, April 2-5.

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- “Narrow-line Seyfert 1 galaxies and their place in the Universe” workshop, Milano (Italy), 2011, April 4-6.
- “Bridging electromagnetic Astrophysics and Cosmology with gravitational waves” workshop, Milano (Italy), 2011, March 28-30.
- “Annual meeting of the Astronomische Gesellschaft”, Bonn (Germany), 2010, September 13-17.
- “What drives the growth of black holes?” workshop, Durham (UK), 2010, July 26-29.
- “AGN9” national conference, Ferrara (Italy), 2010, May 24-27.
- “54esimo Congresso della Società Astronomica Italiana”, Napoli (Italy), 2010, May 4-7.
- “Physics of Galactic Nuclei” conference, Ringberg castle (Germany), 2009, June 15-19.
- “AGN8” national conference, Turin (Italy), 2008, May 19-22.

○ Other attended conferences, workshops and schools

- “FIR fine-structure lines workshop”, Heidelberg (Germany), 2015, June 8-11.
- “ALMA data reduction workshop”, Garching bei München, 2014, November 26-28.
- “MPIA/MPA workshop”, Heidelberg (Germany), 2014, June 24-26.
- “ALMA data reduction workshop”, Garching bei München, 2013, February 21-22.
- “PS1 consortium meeting”, Cambridge, MA (USA), 2011, May 18-21.
- “ALMA Community days”, Garching bei München, 2011, April 6-7.
- “7th IRAM interferometry school”, Grenoble, 2010, October 4-8.
- “AGN: A global view” conference, Como, 2009, June 22-26.
- “Black Holes and their environment” Summer School, Bad Honnef, 2008, Aug. 4-8.
- “Very High Energy Astrophysics for Blazars and Gamma-Ray Burst”, Osservatorio Astronomico di Brera, Milano, 2008, Mar. 17-19.
- “The dark side of the Universe” PhD School at the Società Italiana di Relatività Generale e Fisica della Gravitazione, Como, 2007, May 14-18.
- “Ultra-Luminous X-ray sources Day”, Osservatorio Astronomico di Brera, Milano, 2007, Feb. 14.
- “Neutron Star Day”, Università degli Studi di Milano–Bicocca, 2006, Dic. 6.
- “Swift meeting”, Merate, 2006, Nov. 1-2.

ORGANIZATION OF EVENTS

○ Organization of events

- Co-Chair and LOC member of the “FIR Fine Structure Line workshop”, Heidelberg, 2015, June 8-11.
- Member of the Local Organizer Committee of the “AGN: A global view” conference, Como, 2009, June 22-26.
- Organizer of the weekly “Galaxy coffee” at MPIA, January 2013.

TALKS

○ Seminars

Universidad Andres Bello La Casona, Santiago (Chile), 2017, Jan. 6
Universidad Pontificia Catholica, Santiago (Chile), 2016, Jan. 26
ESO headquarter, Santiago (Chile), 2016, Jan. 22
Universidad Diego Portales, Santiago (Chile), 2016, Jan. 21
Albert Einstein Institut, Golm (Germany), 2014, June 17
Osservatorio Astronomico di Bologna (Italy), 2014, Apr. 17
Königstuhl Colloquium, MPIA, Heidelberg (Germany), 2013, July 26
Ohio State University, Columbus (OH, USA), 2013, Feb. 12
Johns Hopkins University, Baltimore (MD, USA), 2013, Feb. 8
Penn State University, State College (PA, USA), 2013, Feb. 4
ESO headquarter, Santiago, 2012, Feb. 22
Instituto de Astrofísica de Andalucía, Granada, 2011, Mar. 17
ESO headquarter, Santiago, 2011, Feb. 10
Università degli Studi di Milano – Bicocca, 2008, Feb. 26
Nordic Optical Telescope headquarter, Sta Cruz de La Palma, 2007, Oct. 19
ESO headquarter, Santiago, 2007, Sep. 6
Osservatorio Astronomico di Brera – Merate, 2007, Jun. 22

POPULAR SCIENCE

○ Publications

“Buchi neri, galassie e tempo cosmico”, Giornale dell’Astronomia, Vol 36/4, 2010.

○ Seminars

“Buchi neri”, lecture for primary school students in Varedo (MB, Italy), Jan 2015.
“Il mestiere dell’astronomo”, lecture for primary school students in Varedo (MB, Italy), Jan 2015.
“Buchi neri di tutte le taglie”, during the “Occhio all’InSUBria” series at Università degli Studi dell’Insubria, Como, May 7, 2009.
“Quanto è grande l’Universo?”, lecture for primary school students in Varedo (MB, Italy), Feb 2009.

○ Press release

ALMA / NRAO / ESO / MPIA press release on the ASEPSCS survey in the Hubble Ultra Deep Field

GRANTS AND AWARDS

“Premio Pietro Tacchini 2010” assigned by the Italian Astronomy Society for the best PhD Thesis on Astronomy from an Italian University.

TEACHING EXPERIENCE

SCHOOLS

- Lecturer for PhD class (20 hr) at Università di Milano-Bicocca (Italy), 2015, January 7-16.
- Lecturer at the “Heidelberg Graduate School for Fundamental Physics Winterschool 2013”, Forschungszentrum Obergurgl (Austria), 2013, January 19-23.

MENTORING

Co-supervisor of PhD students: Chiara Mazzucchelli (MPIA/IMPRS), Eduardo Bañados (MPIA/IMPRS), Dr. Gisella De Rosa (MPIA/IMPRS), Dr. Emanuele Paolo Farina (Univ. Insubria)

Supervisor of master students: Chiara Mazzucchelli (Univ. Milano-Bicocca, MPIA), Angelo Veronesi (Univ. Insubria).

LANGUAGES

FIRST LANGUAGE
OTHER LANGUAGES

Italian

English – Read: excellent, Write: excellent, Talk: excellent
German – Read: elementar, Write: elementar, Talk: elementar

ABILITIES

SOCIAL SKILLS
ORGANISATIONAL SKILLS

Sociable, confident in public relationships at any level. Experienced in cooperation and group works.
Pragmatic, precise, punctual, well-organized. Used in working on a number of projects simultaneously. Skilled both in leading independent research and in group collaborations.

TECHNICAL SKILLS

O.S.:
Wide experience with Microsoft Windows systems and several Linux releases (in particular Ubuntu and SUSE).
Data reduction & analysis:
Wide experience in astronomical data reduction with IRAF, IRAM/GILDAS. Large experience of data reduction and analysis with CASA. Wide experience with CASA data simulations. Excellent programming skills with Super-Mongo and IRAF native language. Basic knowledge of FORTRAN, Python, C/C++ and bash.
Others:
Excellent knowledge of LaTeX and of Microsoft Office (and equivalent) software. Experience with HTML, CSS, JavaScript programming, GIMP, 3D Studio Max, and Blender graphics software.

HOBBIES

I love astronomy, of course, and I am interested in science outreach and education at any level.
I play the bass guitar and the ukulele, and I love music in most of its forms.
I like biking and indoor climbing.