

Allegato B

Luca Graziani Curriculum Vitae ai fini della pubblicazione

Firenze
03/09/2024

Part I – General Information

Full Name	Luca Graziani
Date of Birth	
Place of Birth	
Citizenship	Italian
Permanent Address	
Mobile Phone Number	
E-mail	
ORCID / WOS / Scopus IDs	0000-0002-9231-1505 / E-3245-2018 / 36160330800
Spoken Languages	Italian, French, English

Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
PhD Degree: Dr. rer. nat. in Astronomy and Astrophysics	2012	Ludwig-Maximilians Universitaet Muenchen, Physics Department, Germany	Thesis: Cosmological radiative transfer through metals in CRASH. doi:10.5281/zenodo.1495252 Supervisors: Prof. S.D.M. White and Dr. B. Ciardi. Final Marks: Magna cum Laude – Astronomy See Allegato 4 for orig. docs.
University graduation: MsC Laurea Specialistica Fisica Generale e Astronomia (20S)	2008	University of Florence, Astrophysics and Space Science Department, Italy	Thesis: Radiative transfer in dusty protoplanetary disks. doi:10.5281/zenodo.1495276 Supervisors: Prof. Egidio Landi degli Innocenti and Prof. Santi Aiello. Final Marks: 110/110 Italian scores
University graduation: BSC Laurea Triennale in Fisica Generale (25/s).	2005	University of Pisa, Physics Department, Italy	Thesis: Symplectic Integrators for Planetary dynamics Supervisor: Prof. P. Paolicchi

Part III – Appointments

IIIA – Academic Appointments

Postdoctoral Experience: 7.5 yrs, RTDa Sapienza University: 3 yrs

Start	End	Institution	Position
2021	2024	Sapienza, University of Rome	RTDa Researcher : Hydrodynamical models of Galaxy Formation with cosmic dust, Local Group Formation, GW events (galactic birth and coalescence sites), teaching
2019	2021	Sapienza, University of Rome, ARC Excellence Center	ARC Fellow: Hydrodynamical models of Galaxy Formation with cosmic dust, Cosmic Reionization, GW events (galactic birth and coalescence sites)
2017	2018	Scuola Normale Superiore di Pisa	Postdoctoral Researcher: Sources of Reionization and QSO feedback
2014	2017	INAF, Astronomical observatory of Rome	ERC Young scientist: Hydrodynamical models of Galaxy Formation with cosmic dust, Cosmic Reionization, Radiative Transfer through gas and dust
2012	2013	Max Planck Institute for Astrophysics (MPA)	DFG Postdoctoral Researcher: Cosmic Reionization, Radiative Transfer through gas metals and dust, 21-cm line

IIIB – Other Appointments: Visiting / PhD and HPC Schools

HPC Schools: 3, PhD Schools: 4, Visiting Programs (mid-long term): 7

Start	End	Institution	Position
2024	2024	KITP Kavli Institute for theoretical physics, Santa Barbara, California, USA.	Visitor. Program: “Cosmic Origins: the first billion years”. (Invited member, 2 weeks – declined)
2019	-	University of Southampton, UK	Visiting fellow and PhD co-Supervisor of Daniel Roberts on SMBHs in dustyGadget Zoom-in simulations
2019	2019	Excellence Cluster ‘Universe’ MIAPP, Germany	Visitor and Program participant: “Galaxy Evolution in a New Era of HI Surveys “ (2 weeks)
2016	2017	Scuola Normale Superiore di Pisa, Italy	External Scientific Collaborator
2016	2016	KITP Kavli Institute for theoretical physics, Santa Barbara, California, USA.	Visitor. Program: “ The cold universe” (Invited member, 1.5 months)
2016	2016	MIAPP: Cosmic Reionization	Visitor and program participant (3 weeks)
2014	2014	Scuola Normale Superiore di Pisa, Italy	Visitor (3 months)
2014	2014	University of Goettingen, Germany	PhD computational school: KROME bootcamp. See Allegato 5 for orig. docs.
2012	2012	University of Melbourne, School of Physics, Australia.	Visitor (3 weeks)
2010	2010	Harish-Chandra Research Institute (HRI), Allahabad, India.	Visitor (3 weeks)
2010	2010	International Max Planck Research School for Astronomy and Cosmic Physics, University of Heidelberg, Germany	5th Heidelberg IMPRS Summer School: First Stars and Cosmic Reionization

2010	2010	DEISA and TeraGrid – Europe USA, Acireale, Italy.	DEISA Grant Fellow at EU/US PhD Summer School on HPC Challenges in Computational Sciences
2008	2012	International Max Planck Research School (IMPRS) on Astrophysics	3 yrs PhD School with exams and final Certificate, see Allegato 5
2007	2007	CINECA, Bologna, Italy	Advanced school on parallel computing III
2007	2007	CINECA, Bologna, Italy	Summer School on Scientific Visualization VII
2007	2007	CINECA, Bologna, Italy	School on parallel computing XVI
2003	2003	CINECA, Bologna, Italy	MPI and OpenMP Programming courses

IIIB – Other Appointments: International Collaborations

1. High- z Universe

CAESAR: Cosmology And Early Structure Assembly in Rome

Available at: <https://www.oa-roma.inaf.it/caesar/>

Contribution: Numerical modelling of galaxy formation and ISM evolution through dust

Athena mission: SWG 2.1: Formation and growth of earliest SMBH

Available at: <https://www.the-athena-x-ray-observatory.eu>

Contribution: Numerical modelling of radiative feedback from quasars (x-rays ionization) on the IGM

Theseus mission: SWG1 group

Available at: <http://isdc.unige.ch/theseus/>

Contribution: Numerical modelling of first stars

SKA Telescope. CD/EoR Science group

Available at: <https://www.skatelescope.org/>

Contribution: Numerical modelling of Reionization process and 21-cm line

Rebels collaboration: "Reionization Era Bright Emission Line Survey"

Available at: <https://sites.google.com/site/rebelswiki/>

Contribution: Numerical modelling of radiative feedback from quasars (x-rays ionization) on the IGM

PNRR Spoke 2 HPC BigData and Quantum at Sapienza University, Dept. Physics

Contribution: Numerical modelling of dustyGadget and BPS extensions

2. Gravitational Wave Astronomy

LISA mission: Astrophysics Working Group

Available at: <https://www.lisamission.org/>

Contribution: Numerical modelling of BH binaries and assembly in GAMESH and dustyGadget, Participation to BPS comparison project as responsible of adopted Common Format (BinCodex) draft with Ruggero Valli (<https://ui.adsabs.harvard.edu/abs/2023arXiv231103431V/abstract>)

ASTRO-Black ITALY

Available at: www.lisamission.org

Contribution: Numerical modelling of BH binaries and assembly in GAMESH and dustyGadget

TEONGRAV: Theory of Gravitational Wave Sources

Available at: <https://web.infn.it/CSN4/index.php/it/17-esperimenti/197-teongrav-team>

Contribution: Numerical modelling of BH binaries and assembly of SMBH in GAMESH and dustyGadget

Past Collaborations:

SPICA mission: Galaxy evolution working group

Available at: <http://spica-mission.org/>

Contribution: Numerical modelling of cosmic dust

PRIN-SKA: Empowering SKA as a probe of galaxy evolution with HI

Available at: <http://cosmos.lambrate.inaf.it/eskape/wiki/> EskapeGroup

Contribution: Numerical modelling of Reionization process

IIIB – Other Appointments: Referee

Journal Topic Editor/Referee:

1. Topic editor of Universe (MDPI)
2. International Journal of Heat and Mass Transfer (Elsevier)
3. Numerical Heat and Mass Transfer (Taylor & Francis)
4. Mathematics (MDPI)
5. Monthly Notices of the Royal Astronomical Society (Oxford University Press)
6. Universe (MDPI)
7. Galaxies (MDPI)
8. Astronomy and Astrophysics (A&A), Edp Sciences

Project Evaluation Referee:

1. CINECA, REPRISE referee
2. PRACE Projects Referee

**IIIB – Other Appointments: department duties, thesis and selection committee
(partecipazione ad organi collegiali)**

1. Since 2022 member of the following final exam committees at Sapienza University:
 - Corso di Astrofisica Extragalattica (Extragalactic Astrophysics, Prof. Pentericci L.)
 - Corso di Astrofisica Stellare (Stellar Astrophysics, Prof. Ventura P. and Prof. Schneider R.)
 - Corso di Laboratorio di Calcolo Avanzato (Computing Methods for Astrophysics)
 - Laurea Magistrale in Astrofisica (LM58) final examinations
 - Laurea Triennale in Fisica (LM30) final examination
2. Master thesis referee: 5 (Gambelli R., Caldarella C., Ferrotti A., Bernardi M., Altamura L.)
3. Bachelor thesis referee: 7 (Giuliano C., Di Domenico C., Mannocchi D., Moretto F., Grammatico M., Piscitelli S., Vantini F.)
4. Postdoctoral Researcher selection committee: 2
(Bandi AR 269/2023 and AdR_20230616_3169)
5. Department duties: Consigli, Commissione Didattica (CAD), Consigli Facoltà

III C – International conferences and workshops: organization and participation

Invited Talks: 11 (1 Review +1 Tech. Meeting)

Contributed talks: 24 (15 Conferences + 8 Workshops +1 Tech. Meeting)

Posters: 10 (9 Conferences + 1 Tech. Meeting)

Conference organization: 1

Session Chair: 3

SOC: 3 / LOC: 1

Institute Seminars: 10

Organization/SOC/LOC:

	Year	Location	Conference/Meeting	Notes
1	2024	Padova, Italy	EAS 2024: 2-days Symposium S3 : New light on Galaxies from Cosmic Dawn to Noon , Padova, Italy	Principal Organizer with G. Rodighiero, SOC Member, Chair of S2 and S7 Sessions.
2	2023	Brussels, Belgium	Euro HPC User day	Invited Chair of Universe Science Session (declined due to Teaching duties)
3	2023	Valencia, Spain	EAS2023 Symposium 12 Breaking down the AGN frontiers:light and sound from early black holes	SOC Member
4	2021	Sapienza University, Roma, Italy	Quid Ultra? Frontiers and Controversies in Astrophysics	SOC Member
5	2008	University of Florence, Italy	XV International conference on the origin of life	LOC Member

International conferences Invited/Review:

	Year	Location	Conference/Meeting
1	2024	Leiden, NL	Exploring the common threads in the chemical evolution of galaxies and gravitational wave astrophysics 2024 (also discussion panelist)
2	2024	Ischia, Italy	Vulcano Workshop 2024: FRONTIER OBJECTS IN ASTROPHYSICS AND PARTICLE PHYSICS
3	2023	Flatiron Institute, Simons Fundation, NYC, USA	Fake Light Workshop 2023.
4	2022	Sexten, BZ, Italy	Hot Topics in Astrophysics 2022
5	2022	Isola d'Elba, Italy	Vulcano Workshop 2022 - Frontier Objects in Astrophysics and Particle Physics
6	2021	Urbino, Italy	SIGRAV2021: XXIV SIGRAV Conference.
7	2021	online	Supernovae and Interstellar Dust
8	2017	University of Florence, Italy	GEE5 Meeting: Galaxy Evolution and environment (Review)
9	2016	MIPP, Muenchen, Germany.	Cosmic Reionisation, MIPP Program
10	2015	Sexten Center for Astrophysics, Italy.	The metal enrichment of diffuse gas in the Universe.

International conferences Contributed:

	Year	Location	Conference/Meeting
1	2021	online	MILLIMETRON: Submillimeter and Millimeter Astronomy: Objectives and Instruments
2	2021	online	Sazerac conf.: CIDER. The Cold ISM During the Epoch of Reionisation
3	2020	Marseille, France (online)	The rise of dust and metals 2020
4	2019	Accademia dei Lincei, Roma, Italy	Extremely Big Eyes on the Early Universe.
5	2019	Institut d'Astrophysique de Paris, France	First structures First galaxies.
6	2018	Strasbourg, France	Rise and Shine 2018
7	2016	Max Planck Society, MPG, Berlin, Germany	From wall to Web
8	2016	Heidelberg University, Germany	First stars V
9	2016	IAPS, Roma, Italy	VIALACTEA: The Milky Way as star formation engine.
10	2015	University of Texas at Austin, USA	South by High redshift.
11	2015	Groningen University, The Netherlands	First stars, galaxies, and black holes: Now and Then.
12	2015	ICTP, Trieste, Italy	Advanced Workshop on Cosmological Structures from Reionization to Galaxies.
13	2015	Soverato, Italy	In the footsteps of galaxies 15.
14	2013	The University of Edinburgh, Scotland	Intergalactic Interactions Workshop.
15	2012	Cervia, Italy	Whereabouts, Physical State and Metallicity of the Missing Baryons in the Local Universe.

International conferences Poster contributions

	Year	Location	Conference/Meeting
1	2018	Malta	Gravity@Malta 2018.
2	2018	IAP Paris, France	Massive black holes in evolving galaxies.
3	2017	INAF Arcetri, Firenze, Italy	Francesco's legacy: star formation in space and time.
4	2016	KITP, Santa Barbara (CA), USA	Molecules and dust as fuel to star formation.
5	2015	University of Texas at Austin, USA	South by High redshift.
6	2011	Institute of Astronomy, University of Cambridge, UK	New Horizons for High redshifts.
7	2008	Münster, Germany	EPSC2008 European Planetary Science Congress 2008.
8	2007	University of Turku, Turku, Finland	EANA 2007, 7th European Workshop on Astrobiology (2 posters).

International Conferences attendance without contribution:

	Year	Location	Conference/Meeting
1	2024	online	Second Cosmic Explorer Symposium
2	2023	Roma, Italy	Future Perspectives on Primordial Black Holes
3	2022	Valencia, Spain	EAS 2022
4	2022	online	Einstein Telescope Community Meeting Autumn
5	2021	online	Roman Science Team Community Briefing
6	2021	online	Kick-off workshop of the Einstein Telescope Observational Science Board
7	2021	online	Sazerac conf.: The 21-cm Signal from Cosmic Dawn and the Epoch of Reionisation
8	2020	San Sebastian, Spain, online	Origin, growth and feedback of black holes in dwarf galaxies
9	2020	KAVLY Cambridge, UK, online	The Epoch of Galaxy Quenching
10	2019	ESO Garching bei Munich	ESO conference:Nine Billion Years of Neutral Gas Evolution
11	2019	Galileo Galilei Institute for Theoretical Physics, Firenze, Italy	Fundamental Physics with LISA. 2018 LISA Workshop series
12	2015	INAF, Roma, Italy	Convegno INAF: Frontiere dell'astrofisica italiana
13	2014	Geneva, Switzerland.	EWASS 2014: European Week of Astronomy and Space Science.
14	2012	University of Strasbourg, France.	The Epoch of Reionization: Theory - Simulations - Observations
15	2012	LMU University, Muenchen, Germany	Planet Formation and Evolution 2012
16	2011	Potsdam, Germany	Young and Bright: Understanding High Redshift Structures.
17	2010	HRI, Allahabad, India	Cosmological Reionization.
18	2009	Leiden, The Netherlands	The Chemical Enrichment of the Intergalactic Medium.

Working Group workshops / Contributed talks:

	Year	Location	Conference/Meeting
1	2017	CEFCA ,Teruel, Spain	3rd YAGN meeting
2	2017	Madrid, Spain	CLUES Meeting
3	2015	INAF OAR, Roma, Italy	AGN meeting
4	2013	Scuola Normale Superiore, Pisa, Italy	DAVID Workshop VII
5	2012	Scuola Normale Superiore, Pisa, Italy	DAVID Workshop VI
6	2012	University of Texas, Austin, USA	Cosmological Radiative Transfer Comparison Project IV
7	2011	Scuola Normale Superiore, Pisa, Italy	DAVID Workshop V
8	2009	INAF, OAA, Florence, Italy	DAVID Workshop IV

Working Group workshops / attended without contribution:

	Year	Location	Conference/Meeting
1	2023	online	Einstein Telescope Annual Meeting
2	2023	Milano, Italy	LISA AstroWG meeting @ Milano-Bicocca.
3	2021	online	SKA conference: A precursor view of the SKA Sky
4	2021	online	THESEUS CONFERENCE 2021, VIRTUAL
5	2020	online	Rebels Collaboration virtual meeting
6	2020	online	SPICA Collaboration virtual meeting
7	2019	Milano, Italy	LISA ASTRO-BLACK ITALY
8	2008	University of Texas, Austin, USA	Cosmological Radiative Transfer Comparison Project Workshop III.

Institute seminars:

	Year	Location	Contrib Type	Notes
1	2021	La Sapienza University of Rome, Roma, Italy	RTDA Public Seminar	High redshift galaxy formation and evolution in the new era of GW astronomy
2	2020	Amaldi Research Center, La Sapienza University of Rome, Roma, Italy	ARC Seminar	Models of galaxy formation constrained by GW
3	2018	INAF-Osservatorio Astrofisico di Firenze, Firenze, Italy	Institute Seminar	Models of galaxy formation with chemical and radiative feedback. doi:10.5281/zenodo.1495124
4	2018	Scuola Normale Superiore, Pisa, Italy	Group Seminar	Galaxy formation and Radiative transfer
5	2014	INAF-Astronomical Observatory of Rome, Roma, Italy	Weekly Seminar	Cosmological radiative transfer through metals and Universe reionisation. doi: 10.5281/zenodo.1494365
6	2013	The University of Melbourne, School of Physics, Australia	Institute Seminar	Radiative transfer with CRASH. doi:10.5281/zenodo.1494355
7	2013	Max Planck Institute for Astrophysics MPA, Garching, Germany	Institute Seminar	Cosmological radiative transfer through metals and the UV background at the epoch of helium reionisation.
8	2012	University of Princeton, Princeton, USA.	Cosmology Seminar	Radiative transfer through metals with CRASH
9	2010	Max Planck Institute for Astrophysics MPA, Garching, Munich.	Fachbeirat / Advisory Committee Invited Talk	Cosmological radiative transfer with CRASH. doi: 10.5281/zenodo.1494332
10	2008	Max Planck Garching, Munich, Germany.	IMPRS Selection Workshop	Contributed Talk: Radiative transfer in protoplanetary disks. doi:10.5281/zenodo.1494264

Technical meetings and HPC

Year	Location	Conference/Meeting	Notes
2024	Rome, Italy	ICSC Annual Meeting	Participant as member of PNRR Spoke 2 activities at Sapienza University
2023	online	NVIDIA GTC conference	Participant
2023	CINECA, Bologna, Italy	Introduction to Leonardo supercomputer, for users and developers	Participant
2022	GGI, Univeristy of Florence, Italy	Machine Learning at GGI	Invited Talk
2021	CINECA, Bologna, Italy	Workshop in High Performance Computing and Quantum Computing	Participant
2021	online	Italian C++ Conference	Participant
2021	online	The EuroHPC Summit Week (EHPCSW) 2021	Participant
2021	online	NVIDIA HPC Summit Digital	Participant
2015	Cefalù, Italy	INAF ICT workshop	Contributed Talk
2014	Barcelona, Spain	PRACE Scientific and Industrial Conference 2014	Participant
2014	Barcelona, Spain	Workshop on exascale and PRACE prototypes	Participant
2013	The Cyprus Institute, Paphos, Cyprus.	Conference on Scientific Computing CSC2013	Poster Contribution
2012	Leibniz-Rechenzentrum. Garching bei Muenchen, Germany	Introduction to large scale program development and debugging on SuperMUC with DDT.	Participant
2010	TUM/LRZ/MPG in Garching, München, Germany	5th VI-HPS Tuning Workshop	Participant

III C – Other Appointments: Non Academic experience

Until 2007: Experience as Senior Software Developer and Software Architect in various Industry Sectors with the following technologies and programming languages:

1. Imperative Programming : C, FORTRAN, Pascal
2. Object Oriented Programming: C++, Java, Smalltalk, REXX scripting, Python
3. Scripting/Formatting: awk, bash, HTML5, XLS, XML, JSON, JavaScript
4. Data Management and big data: IBM DB2 Relational Database, Apache Derby, SQL
5. Servers: Apache/IBM Http server, IBM Websphere Application Server, Apache James MAIL server, IBM Liberty Server
6. Operating systems: Unix, IBM AIX, Linux Enterprise, Windows Server, Windows Professional, Windows NT, IBM OS/2 Warp, OS/2 Warp Server, Sparc Solaris

Since 2019: Architect, implementor and system manager of the Vera Cluster and distributed storage system at ARC Center, Department of Physics, Sapienza University

Part IV – Teaching experience

3 Academic curricular courses (Didattica Frontale in corsi curricolari)
3 Academic extra-curricular courses (Didattica Frontale in corsi extracurricolari)
2 Lecture series as invited lecturer (Didattica Frontale come invited lecturer)
1 Lab Tutor (Esercitazioni)
5 Approfondimenti individuali

OPIS Studenti (feedback from students): high scores obtained on all questions related to my classes and significant student participation.
(> 20 students/class at LM58, > 100 at Biology dept.)
See Allegato 7 for more details

Academic curricular courses:

Year	Institution	Course
2023	Sapienza, University of Rome, Physics Department	Computing Methods for Astrophysics (4 CFU 36/60h), Laurea Magistrale in Astrofisica (LM58) Topics: Grid and Particle methods for partial differential equations, HPC with OpenMP and MPI, Advanced FORTRAN, Code optimization and parallelization, Numerical simulations and strategies to simulate Feedback processes at various scale, Numerical radiative transfer with Monte Carlo Techniques, Parallel RNGs
2022	Sapienza, University of Rome, Biology Department	Fisica Generale a Scienze biologiche, Meccanica Classica e Fluidi (5 CFU), primo anno, Canale 4.
2021	Sapienza, University of Rome, Biology Department	Fisica Generale a Scienze biologiche, Meccanica Classica e Fluidi (5 CFU), primo anno, Canale 4.

Academic extra-curricular courses:

Year	Institution	Course
2024	Sapienza, University of Rome, Percorso di Eccellenza, Physics Department	Approfondimenti individuali su: Advanced C++ / Formation and Evolution of the solar system and its dynamics / Dark Matter dynamics and the cosmic web/ SPH Methods (5 students)
2023	Sapienza, University of Rome, Percorso di Eccellenza, Physics Department	Mini-Corso: "Partial Differential Equations for Cosmological Simulations" (1-2 CFU 8-16h di insegnamento frontale) , 15 students
2023	Sapienza, University of Rome, Percorso di Eccellenza, Physics Department	Mini-Corso: "Introducing C++" (1 CFU 8h di insegnamento frontale) , 12 students
2022	Sapienza, University of Rome, Percorso di Eccellenza, Physics Department	Mini-Corso: "From Advanced scripting to scientific programming with objects" (1 CFU 8h di insegnamento frontale) , 7 students

Lecture series as invited lecturer:

Year	Institution	Course
2023	Scuola Superiore di studi avanzati, Sapienza University	SASS Lectures: Dal Buio alla Luce (Prof. R. Schneider)

2021	Scuola Superiore di studi avanzati, Sapienza University	SASS Lectures: Dal Buio alla Luce (Prof. R. Schneider)
2017	Sapienza, University of Rome, Physics Department	"Simulazioni numeriche", a 4 hours complementary seminar of "Astrofisica Stellare" (Prof. R. Schneider)

Laboratory Tutor (Esercitazioni di laboratorio e assistenza studenti)

Year	Institution	Course
2020	Sapienza, University of Rome, Physics Department	Laboratorio di Calcolo, Laurea Triennale in Fisica - Esercitazioni (Canale D-K, Prof. L. Soffi)

Student Supervision:

11 PhD co-supervisions

9 MsC supervisions (6) /co-supervisions (3)

6 BsC supervisions

1 Internship

PhD Students:

	Year	Institution	Project type	Student	Project involvement/role
1	2023	University of Southampton, UK	PhD Thesis: BH formation in the High-z Universe. Co-supervision with Prof. F. Shankar	Roberts, D.	Supervision on dustyGadget programming / simulations. Scientific Co-supervision
2	2023	Sapienza University	PhD Thesis: Black hole binary formation and GW signals along the universe evolution. Co-supervision with Prof. R. Schneider	Angeloni, F.	Supervision on dustyGadget programming / simulations. Supervision on GAMESH programming / simulations. Scientific Co-supervision
3	2021	Sapienza University	PhD Thesis: Pop III star formation Co-supervision with Prof. R. Schneider	Venditti, A.	Supervision on dustyGadget simulation post-processing. Scientific Co-supervision
4	2020	Sapienza University	PhD Thesis: Properties of dusty galaxies in $4 < z < 6$. Co-supervision with Prof. R. Schneider	Di Cesare, C.	Supervision on dustyGadget simulation post-processing. Scientific Co-supervision
5	2016	TU Univeritaet and Max Planck MPA Garching	PhD Thesis: Radiative Transfer through dust in CRASH Co-supervision with Dr. B. Ciardi	Glatzle, M.	Supervision on CRASH programming / simulations. Scientific Co-supervision
6	2015	LMU Univeritaet and Max Planck MPA Garching	PhD Thesis: Cosmic Reionization Co-supervision with Dr. B. Ciardi	Berge Eide, M.	Supervision on CRASH simulations and post-processing. Scientific Co-supervision
7	2015	Sapienza University	PhD subproject: Properties of dusty, Local Group galaxies with GAMESH. Co-supervision with Prof. R. Schneider	Ginolfi, M.	Supervision on GAMESH programming / simulations. Scientific Co-supervision
8	2015	INAF Observatory of Rome	PhD subproject: Properties of Milky way progenitors with GAMESH.	de Bennassuti, M.	Supervision on GAMESH post-processing / simulations.

			Co-supervision with Prof. R. Schneider		Scientific Co-supervision
9	2014	INAF Observatory of Rome	PhD project: Properties of High redshift dusty Galaxies with dustyGadget. Co-supervision with R. Schneider	Mancini, M.	Supervision on dustyGadget simulation post-processing. Scientific Co-supervision
10	2013	LMU Univeritaet and Max Planck MPA Garching	PhD Subproject: Cosmological Reionisation probed by Lyman alpha line RT and quasars. Co-supervision with Dr. B. Ciardi	Kakiichi, K.	Supervision on CRASH simulations and post-processing. Scientific Co-supervision
11	2012	TU Univeritaet Informatik and Max Planck MPA Garching	PhD Project: Numerical developments in CRASH. AMR, MPI parallelisation, integration with gas dynamics. Co-supervision with Dr. B. Ciardi	Hariharan, N.	Supervision on CRASH programming / simulations. Scientific Co-supervision

MsC Students:

	Year	Institution	Project type	Student	Project involvement/role
1	2024	Sapienza University	To be defined	Saggini M.	To be defined
2	2024	Sapienza University	To be defined	Anzellotti, M.	To be defined
3	2024	Sapienza University	Thesis: Dusty Mergers	Sabatini, C.	Technical supervision with dustyGadget post-processing Scientific supervision
4	2023	Sapienza University	Thesis: The metallicity of galaxies at $z > 4$	Cataldi, E.	Technical supervision with dustyGadget post-processing Scientific supervision
5	2022	Sapienza University	Thesis: The first Black Hole binaries in a Local-like Volume.	Valli, R.	Technical supervision with GAMESH programming and post-processing Scientific supervision
6	2021	Sapienza University	Thesis: Pop III star formation across the Universe. Co-supervision with Prof. R. Schneider	Venditti, A.	Technical supervision with dustyGadget post-processing Scientific co-supervision
7	2020	Sapienza University	Thesis: The spectral properties and observability of dusty galaxies in the Epoch of Reionization. Co-supervision with Prof. R. Schneider	Parente, M.	Technical supervision with dustyGadget post-processing Scientific co-supervision
8	2019	Sapienza University	Thesis: Dust formation in the ejecta of supernovae. Co-supervision with R. Schneider	Bonella, A.	Technical supervision with GRASH Scientific co-supervision
9	2016	TU Univeritaet and Max Planck MPA Garching	Thesis: Radiative transfer through dust in CRASH.	Glatzle, M.	Supervision on CRASH simulations Scientific supervision

BsC students:

Year	Institution	Student Name	Project Title/Degree
2023	Sapienza University	Anzellotti, E.	Ragnatela cosmica di materia oscura.
2023	Sapienza University	Calleri, G.	Trasporto radiativo in un disco protoplanetario.
2023	Sapienza University	Bartoli, G.	Formazione di Molecole in un disco protoplanetario.
2023	Sapienza University	Saggini, M.	Formazione stellare da collisioni di nubi molecolari.
2022	Sapienza University	Di Lorenzo, P.	Oscuramento di nuclei galattici attivi con un toro di polveri.
2022	Sapienza University	Arpaia, L.	Accrescimento di gas su black holes e quasars osservati.

Internships:

2011	TU Univeritaet and Max Planck MPA Garching	Shahriari, N.	Development of a VTK 3D System for CRASH simulations.
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Part V - Society memberships, Awards and Honors

Year	Title
2022	Abilitazione Scientifica Nazionale 2021/2023. Abilitazione alle funzioni di Professore Universitario di Seconda Fascia nel settore concorsuale 02/C1.
2022	Associato INFN
2022	Associato INAF
2022	SIGRAV Member
2021	IAU Member
-	RDA: Research data alliance. International Society and Research Community organization on Big Data definitions and strategies for big data. https://www.rd-alliance.org/
-	EuroScience Members and Conferences Platform (ESCMP)
2013	Awarded PRACE fellowship for the Conference on Scientific Computing 2013 (CSC 2013). Available at: http://cyprusconferences.org/csc2013/
2010	Awarded DEISA Fellowship after competitive call: EU/US Summer School on HPC Challenges in Computational Sciences. Available at: http://www.ihpess.org/
2008	Awarded IMPRS Fellowship after competitive international selection, Max Planck Institute for Astrophysics (MPA), Garching bei Muenchen

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

8 Theory Projects as PI, 4 as a member; Observational proposals as member: >6

Projects as PI: 8 (7 on HPC)

	Year	Title	Program	Grant Value
1	2024	EHPC-DEV-2024D04-074	EuroHPC Development Access Call	4500 node hours on LUMI-G. 800 node hours on MeluXina GPU
2	2023	Revealing the nature of Jades/JWST galaxies with numerical simulations	Sapienza University, Progetti di Ateneo. Progetto Piccolo	
3	2016	From the first stars to the first galaxies with dustyGadget on HPC	PRACE Preparatory Access B n. 24	800k hours
4	2016	Coupling the RT code CRASH4 with the AMR code RAMSES.	PRACE Preparatory Access B n. 24	800k hours
5	2015	High Performance release of the GAMESH pipeline	PRACE Preparatory Access B n. 16	800k hours
6	2015	Porting the Cosmological RT code CRASH to HPC	PRACE Preparatory Access B n. 16	800k hours
7	2014	dustyGadget code development	ISCRA/CINECA	100k hours
8	2014	GAMESH code development	ISCRA/CINECA	100k hours

Projects as a member: 4

Year	Title	Program	Grant Value
2022	Project FLAGS	Italian PRIN	
2020	First stars First Black Holes	Sapienza University Progetto Piccolo	
2019	Early cosmic pollution in the first galaxies	Sapienza University Progetto Piccolo	4
2017	PRIN-SKA : Empowering SKA as a probe of galaxy evolution with HI	Italian PRIN	-

Observational Proposals (as a member of collaborations): > 6 (Examples below)

Year	Title	Program
2021	A Spatially Resolved View of Star Formation in Two Luminous $z \geq 8$ Galaxies showing Prominent Dust-Continuum Emission	HST Proposal
2021	A Revolutionary Panchromatic View of Early Galaxy Growth via NIRSpec/IFU Observations of 12 Massive $z > 6.5$ Galaxies with ALMA-derived [CII] redshifts	JWST Proposal Cycle 1
2021	How to make a Hot-DOG - Studying the mass assembly of the most luminous galaxies in the Universe with MUSE (106.2184)	ESO Program
2016	Revealing the nature of the high-redshift star-forming galaxy SDP.81	ALMA High Priority Projects Cycle 4

Part VII – Research Activities

Keywords	Brief Description
IGM - Reionization	My current research activity spans 3 astrophysical fields: a) Galaxy formation in the high-redshift universe. b) Co-evolution of the Intergalactic Medium through Reionization and Cosmic Metal Enrichment and Cosmic Dust. c) Birth and coalescence sites of Gravitational Wave Signals emitted by compact binaries. I develop and routinely implement theoretical numerical models of galaxy formation with advanced implementation of mechanical feedback (i.e. gas hydrodynamics and winds), radiative feedback and chemical feedback through dust and metal production. In the past, I acquired programming and HPC skills working in software companies with the following technologies: C/C++, Java, Smalltalk, Threads and OpenMP, MPI, Linux Enterprise on Power, Java Servlets and Application Servers, Relational Databases and SQL. I am currently the main software architect and developer of the following numerical models: 1. dustyGadget: a SPH-based cosmological code of galaxy formation focusing at $z > 4$ and based on Gadget 2/3. <i>Main features</i>: accurate cosmic dust and metal enrichment, accurate model of Pop III evolution. The main code branch is developed in C/C++ and presented in: → Graziani et al., 2020, MNRAS (Paper 1, Allegati 6 e 8). Topics: Main scheme and dust model. Statistical predictions on Metallicity → di Cesare et al., 2023, MNRAS (Paper 7, Allegati 6 e 8). Topics: New Cosmological simulations and scaling relations at $z > 4$ → Venditti et al., 2023, MNRAS (Paper 6 Allegati 6 e 8). Topics: Pop III star formation and environments The code is now ported to the new Gadget4 and extended with accelerated modules of the Lib4C library engineered by myself. Modules are developed under small research programs involving my PhD students and taking resources from the following larger HPC programs: a. EuroHPC call on LUMI and MeluXina b. Leonardo at CINECA under TEOGRAV and PNRR Spoke2 collabs c. PRIN-FLAGS
Galaxy formation	
Cosmic Dust	
Radiative Transfer	
High-z Universe, Compact binaries and GW signals	

	Code, runs and results are/were at the core of: → 6 co-supervised PhD past/ongoing projects (Roberts, Angeloni, Venditti, di Cesare, Glatzle, Mancini) → 1 PRIN ongoing Project (FLAGS) (with Otaki, K. as postdoc) → 6 MsC thesis past/ongoing projects (Saggini, Anzellotti, Sabatini, Cataldi, Venditti, Parente) 2. GAMEESH: a Hybrid, semi-numerical model for the formation of the Local Group combining a semi-analytical code, a Nbody DM simulation, the Cosmological Radiative transfer code CRASH and BPS databases to predict GW events. <i>Main features</i>: accurate description of the Milky Way assembly in the Local Group, accurate numerical Radiative Feedback and implications on resolved mini-halos, accurate BPS coupling and self-consistent predictions of the evolution of compact binaries The code is developed in Advanced Modern FORTRAN coupled with Java 21 and presented in: → Graziani L. et al., 2015, MNRAS (doi:10.1093/mnras/stv494). Topics: main pipeline. → Graziani L. et al., 2017, MNRAS (doi: 10.1093/mnras/stx900). Topics: Nbody / Star formation /MW simulation verification. → Ginolfi M., et al., 2018, MNRAS (doi: 10.1093/mnras/stx2572). Topics: dust implementation → Schneider R., et al., 2017, MNRAS (doi: 10.1093/mnras/slx118). Topics: First GW implementation and O2 data. → Marassi et al., 2019, MNRAS (doi:10.1093/mnras/stz170). Topics: First GW event interpretation - Graziani et al., 2020, MNRAS (Paper 2 Allegati 6 e 8): → Multiple BPS adoption and low metallicity events in O2. The code was accelerated and scaled to HPC under past PRACE projects as detailed in PART VI of this document. Code, runs and results are/were at the core of: → 3 co-supervised PhD past/ongoing projects (Angeloni, Ginolfi, de Bennassuti) → 1 MsC thesis past/ongoing projects (Valli)
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	In the past research activity I was responsible for the development of: CRASH: a cosmological radiative transfer code through gas, metals and dust to perform small scale simulations of galactic HII regions and Reionization simulations <i>Main features:</i> multifrequency scheme unlimited number of sources and spectra ionization of H, He and atomic metals dust absorption and grain charging The last version of the code (v4) I developed was a combination of Advanced Modern FORTRAN coupled with Java 8 and presented in: → Ciardi et al., 2012, MNRAS (doi: 10.1111/j.1365-2966.2012.20902.x) Topics: Helium advanced implementation → Graziani et al., 2013, MNRAS (doi: 10.1093/mnras/stt206) Topics: Ionization of metals → Hariharan et al., 2017, MNRAS (doi: 10.1093/mnras/stx162) Topics: Support for AMR PATCH-based schemes → Graziani et al., 2018, MNRAS (Paper 4 Allegati 6 e 8) Topics: X-rays ionization → Eide et al., 2018, MNRAS (Paper 9 Allegati 6 e 8) → Eide et al., 2020, MNRAS (doi: 10.1093/mnras/staa2774) Topics: Reionization simulations with stellar and QSO sources → Glatzle et al., 2019, MNRAS (doi: 10.1093/mnras/sty2514) → Glatzle et al., 2022, MNRAS (Paper 8 Allegati 6 e 8) Topics: Dust implementation in RT scheme The code was scaled to HPC under past PRACE projects as detailed in PART VI of this document. I am now maintaining a personal version of the latest release for the GAMESH integration while developing a new RT scheme to be included in dustyGadget for Radiation hydrodynamics called FiatLuX (under development) Code, runs and results are/were at the core of: → 4 co-supervised PhD past/ongoing projects (Glatzle, Eide, Kakiichi, Hariharan) → 1 MsC thesis past/ongoing projects (Glatzle)
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Part VIII – Summary of Scientific Achievements (overall career last 15 and 7yrs)

Product type	Number	Data Base	Start	End
Papers [international 15 yrs]	67 / 67	Scopus Elsevier / ADS	2010	2024
Papers [international 7yrs]	56 / 56	Scopus Elsevier / ADS	2017	2024

Total Impact factor (2023-2024) Computed as in MIUR PRIN FAQ**	132.8
Total Impact factor (2023-2024) Computed as in MIUR PRIN FAQ (last 7 yrs)**	130.7
Total Impact factor (yr weighted)***	418.456
Total Impact factor (yr weighted)*** (last 7 yrs)	366.797
Total Citations	2464 / 3098
Total Citations (last 7 yrs)	2063 / 2648
Average Citations per Product	36.77 / 46.24
Average Citations per Product (last 7yrs)	36.84 / 47.28
Hirsch (H) index	29 / 32
Normalized H index*	2.417 / 2.667

*H index divided by the academic seniority (time span from PhD: 2012).

** According to MIUR indications (<https://prin.mur.gov.it/Attachments/getAttachment?key=9L3fqE6vI9+EucB3/ELXtg==>): “Il Total IF da indicare in domanda è dato dalla somma degli IF delle riviste su cui sono stati pubblicati gli articoli di cui il PI (o il responsabile di unità) è autore, indipendentemente dalla sua posizione all’interno della lista degli autori.”

*** Computed as sum of impact factor of each article referred to the publication year (as collected in <https://www.bioxbio.com>)

Other metrics indicators (Scopus Elsevier)

(<https://www.scopus.com/hirsch/author.uri?accessor=authorProfile&auidList=36160330800&origin=AuthorProfile>)

Total Referred publications (66 total, 65 Physics and Astronomy (1 correction), 1 Mathematics)
(**9 first author, 9 second author (red number in the list), 7/9 within supervised projects**)

47 publications in MNRAS (IF: 4.7)
4 publications in MNRAS Letters (IF: 4.7)
3 publications in ApJ (IF: 4.8)
1 publication on ApJ Letters (IF: 8.8)
3 publications in A&A (IF: 5.4)
1 publication in Experimental Astronomy (IF: 2.7)
1 publication in General Relativity and Gravitation (IF: 2.1)

1 publication in Living Reviews in Relativity (IF: 26.3)
1 publication in Mathematical Methods In The Applied Sciences (IF: 2.1)
1 publication in Nature (IF: 50.5), 1 in Nature Communications (IF: 14.7)
1 Publication in Physics Switzerland (IF: 1.5)
1 Publications of The Astronomical Society Of Australia (PASA) (IF: 4.5)

Proceedings (non-referred): 1

1 Memorie Della Societa Astronomica Italiana Journal Of The Italian Astronomical Society

Part IX– Publications

Complete Publication List

1	Venditti A., Bromm V., Finkelstein S.L., Graziani L. , Schneider R. The first fireworks: A roadmap to Population III stars during the epoch of reionization through pair-instability supernovae Monthly Notices of the Royal Astronomical Society, 527 (3), pp. 5102 - 5116, DOI: 10.1093/mnras/stad3513 Cited: 0 times (Scopus), 9 (ADS)	2024
2	Palla M., De Looze I., Relaño M., van der Giessen S., Dayal P., Ferrara A., Schneider R., Graziani L. , Algera H.S.B., Aravena M., Bowler R.A.A., Hygate A.P.S., Inami H., van Leeuwen I., Bouwens R., Hodge J., Smit R., Stefanon M., van der Werf P. Metal and dust evolution in ALMA REBELS galaxies: insights for future JWST observations Monthly Notices of the Royal Astronomical Society, 528 (2), pp. 2407 - 2427, DOI: 10.1093/mnras/stae160 Cited: 0 times (Scopus), 4 (ADS)	2024
3	Aravena M., Heintz K., Dessauges-Zavadsky M., Oesch P., Algera H., Bouwens R., Da Cunha E., Dayal P., De Looze I., Ferrara A., Fudamoto Y., Gonzalez V., Graziani L. , Hygate A.P.S., Inami H., Pallottini A., Schneider R., Schouws S., Sommovigo L., Topping M., Van Der Werf P., Palla M. The ALMA Reionization Era Bright Emission Line Survey: The molecular gas content of galaxies at $z \sim 7$ Astronomy and Astrophysics, 682, art. no. A24, DOI: 10.1051/0004-6361/202347281 Cited: 2 times (Scopus), 8 (ADS).	2024
4	Trinca A., Schneider R., Valiante R., Graziani L. , Ferrotti A., Omukai K., Chon S. Exploring the nature of UV-bright $z \gtrsim 10$ galaxies detected by JWST: star formation, black hole accretion, or a non-universal IMF? Monthly Notices of the Royal Astronomical Society, 529 (4), pp. 3563 - 3581, DOI: 10.1093/mnras/stae651 Cited: 7 times (Scopus), 36 (ADS).	2024
5	Algera H.S.B., Inami H., Sommovigo L., Fudamoto Y., Schneider R., Graziani L. , Dayal P., Bouwens R., Aravena M., Da Cunha E., Ferrara A., Hygate A.P.S., Van Leeuwen I., De Looze I., Palla M., Pallottini A., Smit R., Stefanon M., Topping M., Van Der Werf P.P. Cold dust and low [O iii]/[C ii] ratios: an evolved star-forming population at redshift 7 Monthly Notices of the Royal Astronomical Society, 527 (3), pp. 6867 - 6887, DOI: 10.1093/mnras/stad3111 Cited: 11 times (Scopus), 27 (ADS).	2024
6	Bowler R.A.A., Inami H., Sommovigo L., Smit R., Algera H.S.B., Aravena M., Barrufet L., Bouwens R., da Cunha E., Cullen F., Dayal P., De Looze I., Dunlop J.S., Fudamoto Y., Mauerhofer V., McLure R.J., Stefanon M., Schneider R., Ferrara A., Graziani L. , Hodge J.A., Nanayakkara T., Palla M., Schouws S., Stark D.P., van der Werf P.P. The ALMA REBELS survey: obscured star formation in massive Lyman-break galaxies at $z = 4-8$ revealed by the IRX- β and M^* relations Monthly Notices of the Royal Astronomical Society, 527 (3), pp. 5808 - 5828, DOI: 10.1093/mnras/stad3578 Cited: 4 times (Scopus), 13 (ADS).	2024
7	Hygate A.P.S., Hodge J.A., Da Cunha E., Rybak M., Schouws S., Inami H., Stefanon M., Graziani L. , Schneider R., Dayal P., Bouwens R.J., Smit R., Bowler R.A.A., Endsley R., Gonzalez V., Oesch P.A., Stark D.P., Algera H.S.B., Aravena M., Barrufet L., Ferrara A., Fudamoto Y., Hilhorst J.H.A., De Looze I., Nanayakkara T., Pallottini A., Riechers D.A., Sommovigo L., Topping M.W., Van Der Werf P. The ALMA REBELS Survey: discovery of a massive, highly star-forming, and morphologically complex ULIRG at $z = 7.31$	2023

	Monthly Notices of the Royal Astronomical Society, 524 (2), pp. 1775 - 1795, DOI: 10.1093/mnras/stad1212 Cited: 4 times (Scopus), 11 (ADS).	
8	Schneider R., Valiante R., Trinca A., Graziani L. , Volonteri M., Maiolino R. Are we surprised to find SMBHs with JWST at $z \geq 9$? Monthly Notices of the Royal Astronomical Society, 526 (3), pp. 3250 - 3261, DOI: 10.1093/mnras/stad2503 Cited: 15 times (Scopus), 29 (ADS).	2023
9	Di Cesare C., Graziani L. , Schneider R., Ginolfi M., Venditti A., Santini P., Hunt L.K. The assembly of dusty galaxies at $z \geq 4$: the build-up of stellar mass and its scaling relations with hints from early JWST data Monthly Notices of the Royal Astronomical Society, 519 (3), pp. 4632 - 4650, DOI: 10.1093/mnras/stac3702 Cited: 20 times (Scopus), 30 (ADS).	2023
10	Inami H., Algera H.S.B., Schouws S., Sommovigo L., Bouwens R., Smit R., Stefanon M., Bowler R.A.A., Endsley R., Ferrara A., Oesch P., Stark D., Aravena M., Barrufet L., da Cunha E., Dayal P., De Looze I., Fudamoto Y., Gonzalez V., Graziani L. , Hodge J.A., Hygate A.P.S., Nanayakkara T., Pallottini A., Riechers D.A., Schneider R., Topping M., van der Werf P. Correction to: The ALMA REBELS Survey: dust continuum detections at $z > 6.5$ (Monthly Notices of the Royal Astronomical Society (2022) 515:3 (3126–3143)) DOI: 10.1093/mnras/stac1779 Monthly Notices of the Royal Astronomical Society, 518 (3), pp. 3702, DOI: 10.1093/mnras/stac3053 Cited: 0 times (Scopus), 0 (ADS).	2023
11	Venditti A., Graziani L. , Schneider R., Pentericci L., Di Cesare C., Maio U., Omukai K. A needle in a haystack? Catching Population III stars in the epoch of reionization: I. Population III star-forming environments Monthly Notices of the Royal Astronomical Society, 522 (3), pp. 3809 - 3830, DOI: 10.1093/mnras/stad1201 Cited: 12 times (Scopus), 21 (ADS).	2023
12	Rybak M., van Marrewijk J., Hodge J.A., Andreani P., Rivera G.C., Graziani L. , McKean J.P., Viti S., van der Werf P.P. PRUSSIC II. ALMA imaging of dense-gas tracers in SDP.81: Evidence for low mechanical heating and a sub-solar metallicity in a $z = 3.04$ dusty galaxy Astronomy and Astrophysics, 679, DOI: 10.1051/0004-6361/202347315 Cited: 0 times (Scopus), 3 (ADS).	2023
13	Barrufet L., Oesch P.A., Bouwens R., Inami H., Sommovigo L., Algera H., da Cunha E., Aravena M., Dayal P., Ferrara A., Fudamoto Y., Gonzalez V., Graziani L. , Hygate A.P.S., de Looze I., Nanayakkara T., Pallottini A., Schneider R., Stefanon M., Topping M., van der Werf P. The ALMA REBELS Survey: the first infrared luminosity function measurement at $z \sim 7$ Monthly Notices of the Royal Astronomical Society, 522 (3), pp. 3926 - 3934, DOI: 10.1093/mnras/stad1259 Cited: 13 times (Scopus), 20 (ADS).	2023
14	Ventura E.M., Trinca A., Schneider R., Graziani L. , Valiante R., Wyithe S.J.B. The role of Pop III stars and early black holes in the 21-cm signal from Cosmic Dawn Monthly Notices of the Royal Astronomical Society, 520 (3), pp. 3609 - 3625, DOI: 10.1093/mnras/stad237 Cited: 13 times (Scopus), 14 (ADS).	2023
15	Algera H.S.B., Inami H., Oesch P.A., Sommovigo L., Bouwens R.J., Topping M.W., Schouws S., Stefanon M., Stark D.P., Aravena M., Barrufet L., da Cunha E., Dayal P., Endsley R., Ferrara A., Fudamoto Y., Gonzalez V., Graziani L. , Hodge J.A., Hygate A.P.S., de Looze I., Nanayakkara T., Schneider R., van der Werf P.P. The ALMA REBELS survey: the dust-obscured cosmic star formation rate density at redshift 7	2023

	Monthly Notices of the Royal Astronomical Society, 518 (4), pp. 6142 - 6157, DOI: 10.1093/mnras/stac3195 Cited: 43 times (Scopus), 67 (ADS).	
16	Fortuni F., Merlin E., Fontana A., Giocoli C., Romelli E., Graziani L. , Santini P., Castellano M., Charlot S., Chevallard J. FORECAST: A flexible software to forward model cosmological hydrodynamical simulations mimicking real observations Astronomy and Astrophysics, 677, art. no. A102, DOI: 10.1051/0004-6361/202346725 Cited: 1 times (Scopus), 4 (ADS).	2023
17	Amaro-Seoane P., et al. Astrophysics with the Laser Interferometer Space Antenna Living Reviews in Relativity, 26 (1), art. no. 2, DOI: 10.1007/s41114-022-00041-y Cited: 214 times (Scopus), 343 (ADS).	2023
18	Trinca A., Schneider R., Maiolino R., Valiante R., Graziani L. , Volonteri M. Seeking the growth of the first black hole seeds with JWST Monthly Notices of the Royal Astronomical Society, 519 (3), pp. 4753 - 4764, DOI: 10.1093/mnras/stac3768 Cited: 22 times (Scopus), 33 (ADS).	2022
19	Trinca A., Schneider R., Valiante R., Graziani L. , Zappacosta L., Shankar F. The low-end of the black hole mass function at cosmic dawn Monthly Notices of the Royal Astronomical Society, 511 (1), pp. 616 - 640, DOI: 10.1093/mnras/stac062 Cited: 44 times (Scopus), 56 (ADS).	2022
20	Ferrara A., Sommovigo L., Dayal P., Pallottini A., Bouwens R.J., Gonzalez V., Inami H., Smit R., Bowler R.A.A., Endsley R., Oesch P., Schouws S., Stark D., Stefanon M., Aravena M., Da Cunha E., De Looze I., Fudamoto Y., Graziani L. , Hodge J., Riechers D., Schneider R., Algera H.S.B., Barrufet L., Hygate A.P.S., Labbé I., Li C., Nanayakkara T., Topping M., Van Der Werf P. The ALMA REBELS Survey. Epoch of Reionization giants: Properties of dusty galaxies at $z \approx 7$ Monthly Notices of the Royal Astronomical Society, 512 (1), pp. 58 - 72, DOI: 10.1093/mnras/stac460 Cited: 56 times (Scopus), 68 (ADS).	2022
21	Heintz K.E., Oesch P.A., Aravena M., Bouwens R.J., Dayal P., Ferrara A., Fudamoto Y., Graziani L. , Inami H., Sommovigo L., Smit R., Stefanon M., Topping M., Pallottini A., van der Werf P. The ALMA REBELS Survey: The Cosmic HI Gas Mass Density in Galaxies at $z \approx 7$ Astrophysical Journal Letters, 934 (2), art. no. L27, DOI: 10.3847/2041-8213/ac8057 Cited: 23 times (Scopus), 28 (ADS).	2022
22	Sommovigo L., Ferrara A., Pallottini A., Dayal P., Bouwens R.J., Smit R., Da Cunha E., De Looze I., Bowler R.A.A., Hodge J., Inami H., Oesch P., Endsley R., Gonzalez V., Schouws S., Stark D., Stefanon M., Aravena M., Graziani L. , Riechers D., Schneider R., Van Der Werf P., Algera H., Barrufet L., Fudamoto Y., Hygate A.P.S., Labbé I., Li Y., Nanayakkara T., Topping M. The ALMA REBELS Survey: cosmic dust temperature evolution out to $z \sim 7$ Monthly Notices of the Royal Astronomical Society, 513 (3), pp. 3122 - 3135, DOI: 10.1093/mnras/stac302 Cited: 68 times (Scopus), 88 (ADS).	2022
23	Bouwens R.J., Smit R., Schouws S., Stefanon M., Bowler R., Endsley R., Gonzalez V., Inami H., Stark D., Oesch P., Hodge J., Aravena M., Da Cunha E., Dayal P., Looze I.D., Ferrara A., Fudamoto Y., Graziani L. , Li C., Nanayakkara T., Pallottini A., Schneider R., Sommovigo L., Topping M., Van Der Werf P., Algera H., Barrufet L., Hygate A., Labbé I., Riechers D., Witstok J. Reionization Era Bright Emission Line Survey: Selection and Characterization of Luminous Interstellar Medium Reservoirs in the $z > 6.5$ Universe Astrophysical Journal, 931 (2), art. no. 160,	2022

	DOI: 10.3847/1538-4357/ac5a4a Cited: 115 times (Scopus), 152 (ADS).	
24	Tacchella S., Finkelstein S.L., Bagley M., Dickinson M., Ferguson H.C., Giavalisco M., Graziani L. , Grogan N.A., Hathi N., Hutchison T.A., Jung I., Koekemoer A.M., Larson R.L., Papovich C., Pirzkal N., Rojas-Ruiz S., Song M., Schneider R., Somerville R.S., Wilkins S.M., Yung L.Y.A. On the Stellar Populations of Galaxies at $z = 9-11$: The Growth of Metals and Stellar Mass at Early Times Astrophysical Journal, 927 (2), art. no. 170, DOI: 10.3847/1538-4357/ac4cad Cited: 98 times (Scopus), 128 (ADS).	2022
25	Glatzle M., Graziani L. , Ciardi B. Radiative transfer of ionizing radiation through gas and dust: Grain charging in star-forming regions Monthly Notices of the Royal Astronomical Society, 510 (1), pp. 1068 - 1082, DOI: 10.1093/mnras/stab3459 Cited: 8 times (Scopus), 10 (ADS).	2022
26	Inami H., Algera H.S.B., Schouws S., Sommovigo L., Bouwens R., Smit R., Stefanon M., Bowler R.A.A., Endsley R., Ferrara A., Oesch P., Stark D., Aravena M., Barrufet L., Da Cunha E., Dayal P., De Looze I., Fudamoto Y., Gonzalez V., Graziani L. , Hodge J.A., Hygate A.P.S., Nanayakkara T., Pallottini A., Riechers D.A., Schneider R., Topping M., Van Der Werf P. The ALMA REBELS Survey: dust continuum detections at $z > 6.5$ Monthly Notices of the Royal Astronomical Society, 515 (3), pp. 3126 - 3143, DOI: 10.1093/mnras/stac1779 Cited: 62 times (Scopus), 80 (ADS).	2022
27	Endsley R., Stark D.P., Bouwens R.J., Schouws S., Smit R., Stefanon M., Inami H., Bowler R.A.A., Oesch P., Gonzalez V., Aravena M., Da Cunha E., Dayal P., Ferrara A., Graziani L. , Nanayakkara T., Pallottini A., Schneider R., Sommovigo L., Topping M., Van Der Werf P., Hutter A. The REBELS ALMA Survey: efficient Ly α transmission of UV-bright $z \approx 7$ galaxies from large velocity offsets and broad line widths Monthly Notices of the Royal Astronomical Society, 517 (4), pp. 5642 - 5659, DOI: 10.1093/mnras/stac3064 Cited: 35 times (Scopus), 45 (ADS).	2022
28	Topping M.W., Stark D.P., Endsley R., Bouwens R.J., Schouws S., Smit R., Stefanon M., Inami H., Bowler R.A.A., Oesch P., Gonzalez V., Dayal P., da Cunha E., Algera H., van der Werf P., Pallottini A., Barrufet L., Schneider R., De Looze I., Sommovigo L., Whitler L., Graziani L. , Fudamoto Y., Ferrara A. The ALMA REBELS Survey: specific star formation rates in the reionization era Monthly Notices of the Royal Astronomical Society, 516 (1), pp. 975 - 991, DOI: 10.1093/mnras/stac2291 Cited: 61 times (Scopus), 73 (ADS).	2022
29	Dayal P., Ferrara A., Sommovigo L., Bouwens R., Oesch P.A., Smit R., Gonzalez V., Schouws S., Stefanon M., Kobayashi C., Bremer J., Algera H.S.B., Aravena M., Bowler R.A.A., Da Cunha E., Fudamoto Y., Graziani L. , Hodge J., Inami H., De Looze I., Pallottini A., Riechers D., Schneider R., Stark D., Endsley R. The ALMA REBELS survey: the dust content of $z \sim 7$ Lyman break galaxies Monthly Notices of the Royal Astronomical Society, 512 (1), pp. 989 - 1002, DOI: 10.1093/mnras/stac537 Cited: 71 times (Scopus), 92 (ADS).	2022
30	Fudamoto Y., Smit R., Bowler R.A.A., Oesch P.A., Bouwens R., Stefanon M., Inami H., Endsley R., Gonzalez V., Schouws S., Stark D., Algera H.S.B., Aravena M., Barrufet L., Da Cunha E., Dayal P., Ferrara A., Graziani L. , Hodge J.A., Hygate A.P.S., Inoue A.K., Nanayakkara T., Pallottini A., Pizzati E., Schneider R., Sommovigo L., Sugahara Y., Topping M., Van Der Werf P., Bethermin M., Cassata P., Dessauges-Zavadsky M., Ibar E., Faisst A.L., Fujimoto S., Ginolfi M., Hathi N., Jones G.C., Pozzi F., Schaerer D. The ALMA REBELS Survey: Average [CII] $158\mu\text{m}$ Sizes of Star-forming Galaxies from $z \sim 7$ to $z \sim 4$	2022

	Astrophysical Journal, 934 (2), art. no. 144, DOI: 10.3847/1538-4357/ac7a47 Cited: 23 times (Scopus), 35 (ADS).	
31	Ginolfi M., Piconcelli E., Zappacosta L., Jones G.C., Pentericci L., Maiolino R., Travascio A., Menci N., Carniani S., Rizzo F., Arrigoni Battaia F., Cantalupo S., De Breuck C., Graziani L. , Knudsen K., Laursen P., Mainieri V., Schneider R., Stanley F., Valiante R., Verhamme A. Detection of companion galaxies around hot dust-obscured hyper-luminous galaxy W0410-0913 Nature Communications, 13 (1), art. no. 4574, DOI: 10.1038/s41467-022-32297-x Cited: 13 times (Scopus), 15 (ADS).	2022
32	Fudamoto Y., Oesch P.A., Schouws S., Stefanon M., Smit R., Bouwens R.J., Bowler R.A.A., Endsley R., Gonzalez V., Inami H., Labbe I., Stark D., Aravena M., Barrufet L., da Cunha E., Dayal P., Ferrara A., Graziani L. , Hodge J., Hutter A., Li Y., De Looze I., Nanayakkara T., Pallottini A., Riechers D., Schneider R., Ucci G., van der Werf P., White C. Normal, dust-obscured galaxies in the epoch of reionization Nature, 597 (7877), pp. 489 - 492, DOI: 10.1038/s41586-021-03846-z Cited: 84 times (Scopus), 100 (ADS).	2021
33	Spinoglio L., Mordini S., Fernández-Ontiveros J.A., Alonso-Herrero A., Armus L., Bisigello L., Calura F., Carrera F.J., Cooray A., Dannerbauer H., Decarli R., Egami E., Elbaz D., Franceschini A., Alfonso E.G., Graziani L. , Gruppioni C., Hatziminaoglou E., Kaneda H., Kohno K., Labiano Á., Magdis G., Malkan M.A., Matsuhara H., Nagao T., Naylor D., Pereira-Santaella M., Pozzi F., Rodighiero G., Roelfsema P., Serjeant S., Vignali C., Wang L., Yamada T. Mid-IR cosmological spectrophotometric surveys from space: Measuring AGN and star formation at the cosmic noon with a SPICA-like mission Publications of the Astronomical Society of Australia, 38, art. no. e021, DOI: 10.1017/pasa.2021.13 Cited: 6 times (Scopus), 8 (ADS).	2021
34	Tanvir N.R., Le Floch E., Christensen L., Caruana J., Salvaterra R., Ghirlanda G., Ciardi B., Maio U., D'Odorico V., Piedipalumbo E., Campana S., Noterdaeme P., Graziani L. , Amati L., Bagoly Z., Balázs L.G., Basa S., Behar E., De Cia A., Valle M.D., De Pasquale M., Frontera F., Gomboc A., Götz D., Horvath I., Hudec R., Mereghetti S., O'Brien P.T., Osborne J.P., Paltani S., Rosati P., Sergijenko O., Stanway E.R., Szécsi D., Toth L.V., Urata Y., Vergani S., Zane S. Exploration of the high-redshift universe enabled by THESEUS Experimental Astronomy, 52 (3), pp. 219 - 244, DOI: 10.1007/s10686-021-09778-w Cited: 20 times (Scopus), 20 (ADS).	2021
35	Graziani L. , Schneider R., Marassi S., Del Pozzo W., Mapelli M., Giacobbo N. Cosmic archaeology with massive stellar black hole binaries Monthly Notices of the Royal Astronomical Society: Letters, 495 (1), pp. L81 - L85, DOI: 10.1093/mnras/laa063 Cited: 15 times (Scopus), 15 (ADS).	2020
36	Barausse E., et al. Prospects for fundamental physics with LISA General Relativity and Gravitation, 52 (8), art. no. 81, DOI: 10.1007/s10714-020-02691-1 Cited: 297 times (Scopus), 300 (ADS).	2020
37	Rybak M., Hodge J.A., Vegetti S., van der Werf P., Andreani P., Graziani L. , McKean J.P. Full of Orions: A 200-pc mapping of the interstellar medium in the redshift-3 lensed dusty star-forming galaxy SDP.81 Monthly Notices of the Royal Astronomical Society, 494 (4), pp. 5542 - 5567, DOI: 10.1093/mnras/staa879 Cited: 31 times (Scopus), 36 (ADS).	2020
38	Eide M.B., Ciardi B., Graziani L. , Busch P., Feng Y., Di Matteo T.	2020

	Large-scale simulations of H and He reionization and heating driven by stars and more energetic sources Monthly Notices of the Royal Astronomical Society, 498 (4), pp. 6083 - 6099, DOI: 10.1093/mnras/staa2774 Cited: 32 times (Scopus), 40 (ADS).	
39	Graziani L. , Schneider R., Ginolfi M., Hunt L.K., Maio U., Glatzle M., Ciardi B. The assembly of dusty galaxies at $z \geq 4$: Statistical properties Monthly Notices of the Royal Astronomical Society, 494 (1), pp. 1071 - 1088, DOI: 10.1093/mnras/staa796 Cited: 76 times (Scopus), 82 (ADS).	2020
40	Glatzle M., Ciardi B., Graziani L. Radiative transfer of ionizing radiation through gas and dust: The stellar source case Monthly Notices of the Royal Astronomical Society, 482 (1), pp. 321 - 336, DOI: 10.1093/mnras/sty2514 Cited: 21 times (Scopus), 25 (ADS).	2019
41	Marassi S., Graziani L. , Ginolfi M., Schneider R., Mapelli M., Spera M., Alparone M. Evolution of dwarf galaxies hosting GW150914-like events Monthly Notices of the Royal Astronomical Society, 484 (3), pp. 3219 - 3232, DOI: 10.1093/mnras/stz170 Cited: 15 times (Scopus), 15 (ADS).	2019
42	Graziani L. Hunting for Dwarf Galaxies Hosting the Formation and Coalescence of Compact Binaries Physics (Switzerland), 1 (3), pp. 412 - 429, DOI: 10.3390/physics1030030 Cited: 2 times (Scopus), 2 (ADS).	2019
43	Graziani L. , Maselli A., Maio U. UV background fluctuations traced by metal ions at $z \approx 3$ Monthly Notices of the Royal Astronomical Society: Letters, 482 (1), pp. L112 - L117, DOI: 10.1093/mnrasl/sly199 Cited: 6 times (Scopus), 7 (ADS).	2019
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45	Ginolfi M., Schneider R., Valiante R., Pezzulli E., Graziani L. , Fujimoto S., Maiolino R. The infrared-luminous progenitors of high- z quasars Monthly Notices of the Royal Astronomical Society, 483 (1), pp. 1256 - 1264, DOI: 10.1093/mnras/sty3205 Cited: 10 times (Scopus), 10 (ADS).	2019
46	Shankar F., Bernardi M., Richardson K., Marsden C., Sheth R.K., Allevato V., Graziani L. , Mezcua M., Ricci F., Penny S.J., La Franca F., Pacucci F. Black hole scaling relations of active and quiescent galaxies: Addressing selection effects and constraining virial factors Monthly Notices of the Royal Astronomical Society, 485 (1), pp. 1278 - 1292, DOI: 10.1093/mnras/stz376 Cited: 61 times (Scopus), 67 (ADS).	2019
47	Valiante R., Schneider R., Zappacosta L., Graziani L. , Pezzulli E., Volonteri M. Chasing the observational signatures of seed black holes at $z > 7$: Candidate observability Monthly Notices of the Royal Astronomical Society, 476 (1), pp. 407 - 420, DOI: 10.1093/mnras/sty213 Cited: 34 times (Scopus), 43 (ADS).	2018
48	Valiante R., Schneider R., Graziani L. , Zappacosta L.	2018

	Chasing the observational signatures of seed black holes at $z > 7$: Candidate statistics Monthly Notices of the Royal Astronomical Society, 474 (3), pp. 3825 - 3834, DOI: 10.1093/mnras/stx3028 Cited: 22 times (Scopus), 26 (ADS).	
49	Eide M.B., Graziani L. , Ciardi B., Feng Y., Kakiichi K., Di Matteo T. The epoch of cosmic heating by early sources of X-rays Monthly Notices of the Royal Astronomical Society, 476 (1), pp. 1174 - 1190, DOI: 10.1093/MNRAS/STY272 Cited: 52 times (Scopus), 58 (ADS).	2018
50	Ginolfi M., Graziani L. , Schneider R., Marassi S., Valiante R., Dell'Agli F., Ventura P., Hunt L.K. Where does galactic dust come from? Monthly Notices of the Royal Astronomical Society, 473 (4), pp. 4538 - 4543, DOI: 10.1093/mnras/stx2572 Cited: 49 times (Scopus), 54 (ADS).	2018
51	Graziani L. , Ciardi B., Glatzle M. X-ray ionization of the intergalactic medium by quasars Monthly Notices of the Royal Astronomical Society, 479 (4), pp. 4320 - 4335, DOI: 10.1093/mnras/sty1367 Cited: 23 times (Scopus), 25 (ADS)	2018
52	Graziani L. , De Bennassuti M., Schneider R. Star formation in Milky Way progenitors Memorie della Societa Astronomica Italiana - Journal of the Italian Astronomical Society, 88 (4), pp. 858 - 859, Cited 0 times (Scopus), 0 (ADS).	2017
53	Graziani L. , de Bennassuti M., Schneider R., Kawata D., Salvadori S. The history of the dark and luminous side of Milky Way-like progenitors Monthly Notices of the Royal Astronomical Society, 469 (1), pp. 1101 - 1116, DOI: 10.1093/mnras/stx900 Cited: 33 times (Scopus), 34 (ADS).	2017
54	Kakiichi K., Graziani L. , Ciardi B., Meiksin A., Compostella M., Eide M.B., Zaroubi S. The concerted impact of galaxies and QSOs on the ionization and thermal state of the intergalactic medium Monthly Notices of the Royal Astronomical Society, 468 (3), pp. 3718 - 3736, DOI: 10.1093/mnras/stx603 Cited: 28 times (Scopus), 31 (ADS).	2017
55	Schneider R., Graziani L. , Marassi S., Spera M., Mapelli M., Alparone M., de Bennassuti M. The formation and coalescence sites of the first gravitational wave events Monthly Notices of the Royal Astronomical Society: Letters, 471 (1), pp. L105 - L109, DOI: 10.1093/mnrasl/slx118 Cited: 44 times (Scopus), 45 (ADS).	2017
56	Hariharan N., Graziani L. , Ciardi B., Miniati F., Bungartz H.-J. Enabling radiative transfer on AMR grids in CRASH Monthly Notices of the Royal Astronomical Society, 467 (2), pp. 2458 - 2475, DOI: 10.1093/mnras/stx162 Cited: 6 times (Scopus), 8 (ADS).	2017
57	Manti S., Gallerani S., Ferrara A., Feruglio C., Graziani L. , Bernardi G. Radio recombination lines from obscured quasars with the SKA Monthly Notices of the Royal Astronomical Society, 456 (1), pp. 98 - 107, DOI: 10.1093/mnras/stv2635 Cited: 4 times (Scopus), 5 (ADS).	2016
58	Mancini M., Schneider R., Graziani L. , Valiante R., Dayal P., Maio U., Ciardi B. Interpreting the evolution of galaxy colours from $z = 8$ to 5 Monthly Notices of the Royal Astronomical Society, 462 (3), pp. 3130 - 3145,	2016

	DOI: 10.1093/mnras/stw1783 Cited: 54 times (Scopus), 57 (ADS).	
59	Kakiichi K., Dijkstra M., Ciardi B., Graziani L. Ly α -emitting galaxies as a probe of reionization: Large-scale bubble morphology and small-scale absorbers Monthly Notices of the Royal Astronomical Society, 463 (4), pp. 4019 - 4040, DOI: 10.1093/mnras/stw2193 Cited: 38 times (Scopus), 44 (ADS).	2016
60	Mancini M., Schneider R., Graziani L., Valiante R., Dayal P., Maio U., Ciardi B., Hunt L.K. The dust mass in $z > 6$ normal star-forming galaxies Monthly Notices of the Royal Astronomical Society: Letters, 451 (1), pp. L70 - L74, DOI: 10.1093/mnras/lsv070 Cited: 122 times (Scopus), 128 (ADS).	2015
61	Graziani L., Salvadori S., Schneider R., Kawata D., de Bennassuti M., Maselli A. Galaxy formation with radiative and chemical feedback Monthly Notices of the Royal Astronomical Society, 449 (3), pp. 3137 - 3148, DOI: 10.1093/mnras/stv494 Cited: 37 times (Scopus), 41 (ADS).	2015
62	Ciardi B., Inoue S., Abdalla F.B., Asad K., Bernardi G., Bolton J.S., Brentjens M., De Bruyn A.G., Chapman E., Daiboo S., Fernandez E.R., Ghosh A., Graziani L., Harker G.J.A., Iliev I.T., Jelić V., Jensen H., Kazemi S., Koopmans L.V.E., Martinez O., Maselli A., Mellema G., Offringa A.R., Pandey V.N., Schaye J., Thomas R., Vedantham H., Yatawatta S., Zaroubi S. Simulating the 21 cm forest detectable with LOFAR and SKA in the spectra of high- z GRBs Monthly Notices of the Royal Astronomical Society, 453 (1), pp. 101 - 105, DOI: 10.1093/mnras/stv1640 Cited: 14 times (Scopus), 18 (ADS).	2015
63	Jeeson-Daniel A., Ciardi B., Graziani L. Clumping factors of H II, He II and He III Monthly Notices of the Royal Astronomical Society, 443 (3), pp. 2722 - 2732, DOI: 10.1093/mnras/stu1365 Cited: 13 times (Scopus), 14 (ADS)	2014
64	Graziani L., Maselli A., Ciardi B. CRASH3: Cosmological radiative transfer through metals Monthly Notices of the Royal Astronomical Society, 431 (1), pp. 722 - 740, DOI: 10.1093/mnras/stt206 Cited: 36 times (Scopus), 43 (ADS).	2013
65	Ciardi B., Labropoulos P., Maselli A., Thomas R., Zaroubi S., Graziani L., Bolton J.S., Bernardi G., Brentjens M., de Bruyn A.G., Daiboo S., Harker G.J.A., Jelić V., Kazemi S., Koopmans L.V.E., Martinez O., Mellema G., Offringa A.R., Pandey V.N., Schaye J., Veligatla V., Vedantham H., Yatawatta S. Prospects for detecting the 21 cm forest from the diffuse intergalactic medium with LOFAR Monthly Notices of the Royal Astronomical Society, 428 (2), pp. 1755 - 1765, DOI: 10.1093/mnras/sts156 Cited: 24 times (Scopus), 31 (ADS).	2013
66	Ciardi B., Bolton J.S., Maselli A., Graziani L. The effect of intergalactic helium on hydrogen reionization: Implications for the sources of ionizing photons at $z > 6$ Monthly Notices of the Royal Astronomical Society, 423 (1), pp. 558 - 574, DOI: 10.1111/j.1365-2966.2012.20902.x Cited: 59 times (Scopus), 68 (ADS).	2012
67	Graziani L., Barletti L., Aiello S., Cecchi-Pestellini C. Radiative transfer modelling in protoplanetary disks with the P-N approximation and monte carlo techniques	2010

	Mathematical Methods in the Applied Sciences, 33 (10), pp. 1263 - 1273, DOI: 10.1002/mma.1285 Cited: 0 times (Scopus), 0 (ADS).	
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Selected Publications

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

(First author: 5 Second Author in student supervision: 5, In large collaborations.: 2)

First author publications: 5

1. **Graziani L.**, Schneider R., Ginolfi M., Hunt L. K., Maio U., Glatzle M., Ciardi B. (2020).
The assembly of dusty galaxies at $z \geq 4$: Statistical properties.
Monthly Notices of the Royal Astronomical Society, Vol. 494, p. 1071-1088
ISSN: 0035-8711, doi: 10.1093/mnras/staa796, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 76 ADS CITATIONS: 82
2. **Graziani, L.**, Schneider, R., Marassi, S., Del Pozzo, W., Mapelli, M., Giacobbo, N. (2020).
Cosmic archaeology with massive stellar black hole binaries.
Monthly Notices of the Royal Astronomical Society, Letters Vol. 495, p. L81-L85,
ISSN: 1745-3925, doi:10.1093/mnras/slaa063, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 15 ADS CITATIONS: 15
3. **Graziani L.**, Maselli A., Maio U. (2019).
UV background fluctuations traced by metal ions at $z \approx 3$.
Monthly Notices of the Royal Astronomical Society, Letters, Vol. 482, p. L112- L117
ISSN: 1745-3925, doi: 10.1093/mnras/sly199, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 6 ADS CITATIONS: 7
4. **Graziani L.**, Ciardi B., Glatzle M. (2018).
X-ray ionization of the intergalactic medium by quasars.
Monthly Notices of the Royal Astronomical Society, Vol. 479, p. 4320-4335
ISSN: 0035-8711, doi:10.1093/mnras/sty1367, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 23 ADS CITATIONS: 25
5. **Graziani, L.**, de Bennassuti, M., Schneider, R., Kawata, D., Salvadori, S. (2017).
The history of the dark and luminous side of Milky Way-like progenitors.
Monthly Notices of the Royal Astronomical Society, Vol. 469, p. 1101-1116
ISSN: 0035-8711, doi: 10.1093/mnras/stx900, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 33 ADS CITATIONS: 34

Second author in student co-supervision: 5

6. Venditti, A., **Graziani, L.**, Schneider, R., Pentericci, L., Di Cesare, C., Maio, U., Omukai K. (2023)
A needle in a haystack? Catching Population III stars in the epoch of reionization: I.
Population III star-forming environments.
Monthly Notices of the Royal Astronomical Society, Vol. 522, Issue 3, pp.3809-3830
ISSN 0035-8711, doi: 10.1093/mnras/stad1201, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 12 ADS CITATIONS: 21
7. Di Cesare C., **Graziani L.**, Schneider R., Ginolfi, M., Venditti A., Santini P., Hunt L. K. (2023)
The assembly of dusty galaxies at $z \geq 4$: the build-up of stellar mass and its scaling relations with hints from early JWST data.
Monthly Notices of the Royal Astronomical Society, Vol. 519, Issue 3, pp.4632-4650
ISSN 0035-8711, doi:10.1093/mnras/stac3702, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 20 ADS CITATIONS: 30

8. Glatzle, M., **Graziani, L.**, Ciardi, B. (2022).
Radiative transfer of ionizing radiation through gas and dust: grain charging in star-forming regions.
Monthly Notices of the Royal Astronomical Society, Vol. 510, p. 1068-1082
ISSN: 0035-8711, doi: 10.1093/mnras/stab3459, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 8 ADS CITATIONS: 10

9. Eide M. B., **Graziani L.**, Ciardi B., Feng Y., Kakiichi K., Di Matteo T. (2018)
The epoch of cosmic heating by early sources of X-rays.
Monthly Notices of the Royal Astronomical Society, vol. 476, p. 1174-1190
ISSN:0035-8711, doi: 10.1093/MNRAS/STY272, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 52 ADS CITATIONS: 58

10. Kakiichi K., **Graziani L.**, Ciardi B., Meiksin A., Compostella M., Eide Marius B., Zaroubi S. (2017)
The concerted impact of galaxies and QSOs on the ionization and thermal state of the
intergalactic medium
Monthly Notices of the Royal Astronomical Society, Vol. 468, Issue 3, p.3718-3736
ISSN: 0035-8711, doi: 10.1093/mnras/stx603, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 28 ADS CITATIONS: 31

Papers in scientific collaborations: 2

11. Bouwens R. J., Smit R., Schouws S., Stefanon M., Bowler R., Endsley R., Gonzalez V.,
Inami H., Stark D., Oesch P., Hodge J., Aravena M., da Cunha E., Dayal P., de Looze I.,
Ferrara A., Fudamoto Y., **Graziani, L.** et al. (2022)
Reionization Era Bright Emission Line Survey: Selection and Characterization of
Luminous Interstellar Medium Reservoirs in the $z > 6.5$ Universe
The Astrophysical Journal, Vol. 931, Issue 2, id.160, pp.
ISSN: doi: 10.3847/1538-4357/ac5a4a, Impact Factor (current from journal page): 4.8
SCOPUS CITATIONS: 115 ADS CITATIONS: 152

12. Fudamoto Y., Oesch P. A., Schouws S., Stefanon M., Smit R., Bouwens R. J., Bowler R. A. A.,
Endsley R., Gonzalez V., Inami H., Labbe I., Stark D., Aravena M., Barrufet L., da Cunha E.,
Dayal P., Ferrara A., **Graziani L.** et al. (2021)
Normal, dust-obscured galaxies in the epoch of reionization.
Nature, Vol. 597, Issue 7877, p.489-492
ISSN: 0028-0836, doi: 10.1038/s41586-021-03846-z, Impact Factor (current from journal page): 50.5
SCOPUS CITATIONS: 84 ADS CITATIONS: 100

In conformità con art. 4 del Codice in materia di protezione dei dati personali e dall'art. 26 del D. Lgs. 14 marzo 2013, n. 33, al fine della pubblicazione del seguente CV, autorizzo il trattamento dei miei dati personali ai sensi dell'art. 13 del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali" e dell'art. 13 del GDPR (Regolamento UE 2016/679).