Michele Fumagalli

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Scientific Interests

Gas flows around galaxies, galaxy formation and evolution, the role of environment, absorption line systems, physics of the interstellar medium, star formation, stellar initial mass function.

Academic History

2020- **Professor**, *University of Milano Bicocca*.
2020- **Associate**, *INAF - Osservatorio Astronomico di Trieste*.
2020- **Visiting Professor**, *Durham University*.
2018-2020 **Professor**, *Durham University*.
2017-2018 **Associate Professor (Reader)**, *Durham University*.
2014-2017 **Assistant Professor (Lecturer)**, *Durham University*.
2013-2014 **Postdoctoral Fellow**, *Carnegie Observatories, Princeton University*.

Education

2016 **Postgraduate Certificate in Academic Practice**, *Durham University, UK*.
2012 **Ph.D. in astrophysics**, *University of California, Santa Cruz, USA*.
2010 **Master in astrophysics**, *University of California, Santa Cruz, USA*.
2008 **Laurea specialistica (MSc)**, *University of Milano Bicocca, Italy*.
2006 **Laurea triennale (BSc)**, *University of Milano Bicocca, Italy*.

Selected Awards and Fellowships

2017 **Abilitazione Nazionale Italiana**, *Professore Associato e Ordinario*.
2015 **Fellow of the Higher Education Academy**.
2014-2015 **Carnegie Visiting Associate**, Carnegie Observatories.
Visiting fellowship at Carnegie Observatories.
2012 **Lyman Spitzer Fellowship**, Princeton University.
Postdoctoral fellowship in theoretical astrophysics.
2012 **Carnegie-Princeton Fellowship**, Carnegie Observatories, Princeton University.
Postdoctoral fellowship in observational astrophysics.

2012 **Hubble Fellowship**, Carnegie Observatories.
Awarded to highly qualified recent postdoctoral scientists to conduct independent research.

2012 **CfA Fellowship**, (declined), The Harvard-Smithsonian Center for Astrophysics.
Awarded to an outstanding researcher displaying significant promise in theory or observation.

2012 **Miller Research Fellowship**, (declined), University of California, Berkeley.
Awarded to exceptional young scientists of great promise.

2011 **Price Prize in Cosmology and AstroParticle Physics**, CCAPP, Ohio State University.
Awarded in recognition of research excellence in cosmology and astro-particle physics.

2011 **Chancellor's Dissertation Year Fellowship**, UCSC.
Awarded based on the academic achievement of the nominee.

2010 **Whitford Prize**, Department of Astronomy, UCSC.
Awarded for outstanding performance during the first and second years.

2008 **Regents' fellowship**, UCSC.
Awarded to promising first-year graduate students.

Grant History (principal investigator or primary co-investigator)

2023 **Bando Prin 2022 PNRR**, MUR, (Node PI).

2022 **Dipartimenti di Eccellenza 2023-2027**, MUR, (Deputy PI).

2020 **Durham Astronomy Consolidated Grant**, STFC, (Project co-PI).

2019 **NASA grant**, HST-GO-15637, (Science Co-PI).

2018 **ERC Attrattività**, Fondazione Cariplo, (PI).

2017 **ERC Starting Grant**, ERC, (PI).

2017 **Durham Astronomy Consolidated Grant**, STFC, (Project PI).

2015 **NASA grant**, HST-GO-14127, (Science PI).

2012 **NASA Hubble Fellowship**, grant HF-51305.01-A, (PI).

2010 **HIPACC grant**, University California, (PI).

Talks, Seminars, Conferences

Mar., 2024 **Bologna Joint Astrophysical Colloquium**, *INAF/University of Bologna, IT*, invited.
The gas environment of galaxies across 10 billion years

Jan., 2024 **Astronomy colloquium**, *Lancaster, UK*, invited.
The gas environment of galaxies across 10 billion years

Sep., 2023 **IMAGING 2023**, *Italy*, Organizing committee.
Connecting the dots between the CGM and the larger-scale environment

May., 2023 **IASF Colloquium Series**, *IASF-INAF, Milan*, Invited.
The gas environment of galaxies across 10 billion years

Apr., 2023 **The Department of Astronomy Colloquium Series**, *Tsinghua University*, Invited.
The gas environment of galaxies across 10 billion years

Mar., 2023 **The Circum-Galactic Medium across cosmic time: an observational and modeling challenge**, *The 52nd "Saas-Fee Advanced Course"*, Invited lecturer.
The multiphase CGM in absorption and emission

Feb., 2023 **The Multiphase Circumgalactic Medium**, *Ringberg Castle, Germany*, Invited.
The gas environment of galaxies across 10 billion years

Nov., 2022 **IoA colloquium**, *Cambridge, UK*, invited.
The gas environment of galaxies across 10 billion years

Sep., 2022 **What Matter(s) Around Galaxies 2022**, *Italy*, SOC chair and lead organizer.
Connecting the dots between the CGM and the larger-scale environment

Jun., 2021 **KIAA Forum on Gas in Galaxies for Early Career Scientists**, *Kavli Institute for Astronomy and Astrophysics*, invited.
Flows around galaxies: advancements, challenges and opportunities

May., 2021 **Multi-object Spectroscopy for Statistical Measures of Galaxy Evolution Workshop**, *Space Telescope Science Institute*, invited review.
Studying gas flows around galaxies with multi object spectroscopy

May., 2021 **Extragalactic Seminar Series**, *University of Victoria*, invited.
Shedding light on gas around galaxies across cosmic times

Apr., 2021 **Astronomy Colloquium**, *University of California, Santa Cruz*, invited.
Shedding light on gas around galaxies across cosmic times

Mar., 2021 **Physics Colloquium**, *North Carolina State University*, invited.
Shedding light on gas around galaxies across cosmic times

Nov., 2020 **Kapteyn Institute Colloquium**, *University of Groningen*, invited.
Shedding light on gas around galaxies across cosmic times

Jun., 2020 **EAS 2020**, *Leiden*, invited review.
Flows around galaxies in 2020: advancements, challenges and opportunities

Jun., 2020 **Insights into the CGM and ICM**, *IAP, France*, invited.
MUSE observations of the CGM of distant galaxies

Apr., 2020 **Astronomy Colloquium**, *Royal Observatory/Edinburgh*, invited.
Shedding light on gas around galaxies across cosmic times

Mar., 2020 **Astronomy Colloquium**, *INAF/Arcetri*, invited.
Shedding light on gas around galaxies across cosmic times

Dec., 2019 **Joint Astronomy Colloquium**, *MPA-MPE-ESO*, invited.
Shedding light on gas around galaxies across cosmic times

Oct., 2019 **CGM in Berlin 2019**, *Max Planck Society*, invited.
Gas around galaxies at $z \sim 2-3$: linking emission and absorption with large surveys

Jun., 2019 **What Matter(s) Between Galaxies**, *Abbazia di Spineto*, SOC.
Gas around galaxies: connecting emission and absorption with large surveys

Mar., 2019 **Astronomy Seminar**, *Nottingham University*, invited.
Shedding light on gas around galaxies across cosmic time

Dec., 2018 **Twenty years of science at Bicocca**, *Milano-Bicocca University*, invited review.
Astrophysics ± 20: Deeper, Sharper, and Bigger

Nov., 2018 **CASTOR UV space observatory**, *The Royal Observatory Edinburgh*, invited review.
The galaxy-IGM connection

Jun., 2017 **What Matter(s) Around Galaxies**, *Durham University*, SOC/LOC co-chair.
Probing the gaseous environment of star-forming galaxies in absorption and emission

Apr., 2017 **Seminar, Department of Physics**, *University of Milano-Bicocca*, invited.
MUS(E)ing over gas flows as drivers of galaxy evolution

May., 2016 **Cavendish Astrophysics Seminar**, *University of Cambridge*, invited.
Gas flows as fuel for star formation: a spotlight on strong absorption line systems

Apr., 2016 **Astronomy Seminar**, *ETH Zurich*, invited.
Gas flows as fuel for star formation: a spotlight on strong absorption line systems

Mar., 2016 **Astronomy Seminar**, *Stockholm University*, invited.
Gas flows as fuel for star formation: a spotlight on strong absorption line systems

Sep., 2015 **Astronomy Seminar**, *INAF/Trieste*, invited.
Gas flows as fuel for star formation: a spotlight on strong absorption line systems

Jun., 2015 **IGM@50**, *INAF/Firenze*, invited.
Probing gas flows near galaxies: a spotlight on Lyman Limit Systems

Jun., 2014 **Intergalactic Matters**, *MPIA, Heidelberg*, invited.
A shot in the dark: the star formation rates of DLAs at $z \sim 2-3$

Apr., 2014 **Colorful galaxies: a conference for Peppo Gavazzi's birthday**, *Como, Italy*, invited.
Can we use Hα to trace star formation rates?

Apr., 2014 **Exploiting VST ATLAS... and its sister surveys**, *Durham University*, invited.
ATLAS search for Lyman Limit Systems in quasar pairs.

Mar., 2014 **Astronomy Friday Lunch Talks**, *Durham University*.
The importance of stochastic effects in stellar population synthesis.

Jan., 2014 **DEX meeting**, *Durham University*.
Investigations on the gaseous environment of distant galaxies.

Dec., 2013 **TAPIR seminar**, *Caltech*, invited.
Investigations on the gaseous environment of distant galaxies.

Oct., 2013 **Metal Production and Distribution in a Hierarchical Universe**, *Rencontres de l'Observatoire de Paris 2013 - ESO Workshop*, invited review.
IGM abundances in the high-redshift universe.

Aug., 2013 **Santa Cruz Galaxy Workshop**, *UCSC*.
Lyman limit systems and the circumgalactic medium at $z \sim 2-3$.

Jun., 2013 **Intergalactic Interactions**, *Higgs Centre, Edinburgh*, invited.
Lyman limit systems and the circumgalactic medium at $z \sim 2-3$.

Jun., 2013 **ENIGMA workshop**, *MPIA*, invited.
Lyman limit systems and the circumgalactic medium at $z \sim 2-3$.

Apr., 2013 **Lunch Talk**, *Carnegie Observatories*.
Beyond the disk: The role of halo gas in galaxy formation.

Mar., 2013 **Hubble Fellows Symposium**, *STScI, Baltimore*.
Optically-thick hydrogen in the z=3 universe

Dec., 2012 **University of Milano-Bicocca**, *Milan*, invited.
The gaseous environment of distant galaxies

Nov., 2012 **UT Astronomy Colloquium**, *Austin*, invited.
The gaseous environment of distant galaxies

Sep., 2012 **Keck Science Meeting**, *San Diego*.
Pristine gas two billion years after the Big Bang

Jun., 2012 **Metals in Tuscany**, *INAF/Firenze*, invited.
Pristine gas two billion years after the Big Bang

May., 2012 **Price Prize lecture**, *CCAPP Ohio State University*, invited.
Cosmology with absorption line systems

Apr., 2012 **Astronomy Colloquium**, *Osservatorio Astronomico di Brera*, invited.
Cosmology with absorption line systems

Mar., 2012 **Turbulence in Cosmic Structure Formation**, *Arizona State University*.
Detection of pristine gas two billion years after the Big Bang

Jan., 2012 **DARK Cake Meeting**, *DARK Cosmology Centre*.
Detecting cold accretion and metal poor gas around galaxies

Jan., 2012 **219th AAS Meeting**, *Austin, TX*.
Exploring the gas cycle in high-redshift galaxies: a joint effort of theory and observations

Dec., 2011 **Theory meeting of the Galaxy and Cosmology group**, *MPIA Heidelberg*.
Probing inflow in high-redshift galaxies

Oct., 2011 **Theoretical Astrophysics Center seminar**, *UC Berkeley*, invited.
Exploring the gas cycle in high-redshift galaxies: a joint effort of theory and observations

Oct., 2011 **Lunch Talk**, *Carnegie Observatories*.
Exploring the gas cycle in high-redshift galaxies: a joint effort of theory and observations

Oct., 2011 **Astronomy Tea Talk**, *Caltech*.
Exploring the gas cycle in high-redshift galaxies: a joint effort of theory and observations

Aug., 2011 **Santa Cruz galaxy workshop**, *Santa Cruz*.
Cold streams and primordial gas at high redshift

Jul., 2011 **Celebrating the career of A. Wolfe**, *Schloss Ringberg*, invited.
Detecting cold streams with absorption line systems

Jul., 2011 **MPIA**, *Heidelberg*.
Stochastic star formation and IMF (non) variation

Jun., 2011 **Odyssey of cosmic baryons**, *Marseille*.
Detecting cold streams with absorption line systems

Jun., 2011 **Gas in galaxies**, *Kloster Seeon, Germany*.
Detecting cold streams with absorption line systems

Dec., 2010 **CASS, UCSD**, *San Diego*.
Gas in and around galaxies

Aug., 2010 **Santa Cruz galaxy workshop**, *Santa Cruz*.
Gas in simulations of $z > 2$ galaxies

May, 2010 **Como+Milano+Heidelberg+Marseille**.
Images and simulations to connect gas and stars in $z > 2$ galaxies

Apr., 2010 **UCSC**, *Santa Cruz*.
Hunting gas and stars in galaxies across the Universe

Aug., 2009 **Santa Cruz Galaxy Workshop**, *Santa Cruz*.
A shot in the dark: probing galaxies giving rise to DLAs at $z > 2$

Aug., 2009 **UCSC Friday Lunch Talk**, *Santa Cruz*.
Molecular gas deficiency in HI poor galaxies

Jun., 2009 **University of Chicago**, *Chicago*.
A shot in the dark: imaging of DLAs

Mar., 2009 **Università dell'Insubria**, *Como, Italy*.
Star formation $z = 0 - 3$

Dec., 2008 **CASS, UCSD**, *San Diego*.
The star formation rate and gas content in local spiral galaxies

Jul., 2008 **Università di Milano-Bicocca**, *Milano, Italy*.
The relationship between gas content and star formation rate in spiral galaxies

Proposal History (principal investigator or primary co-investigator)

2022 HST; 100 SNAP targets, cycle 31.

2022 ALMA; 9 hours, cycle 9.

2022 ESO/VLT; 16 hours, P109.

2021 ALMA; 9 hours, cycle 8.

2019 ESO/VLT; 25 hours, P105.

2019 Hubble Space Telescope; 8 orbits, cycle 27.

2019 JCMT/SCUBA-2; 30 hours, 2019B.

2018 Hubble Space Telescope; 90 orbits, cycle 26 (LP).

2017 ESO/VLT; 250 hours, P101 (LP).
2018 JCMT/SCUBA-2; 16 hours, 2018A.
2017 ESO/VLT; 36 hours, P100.
2017 JCMT/SCUBA-2; 9 hours, 2017B.
2016 ESO/VLT; 18 hours, P99.
2016 Keck Telescope; 2 nights, 2016B.
2016 Hubble Space Telescope; 96 orbits, cycle 24 (LP).
2016 JCMT/SCUBA-2; 9 hours, 2016B.
2016 Keck Telescope; 1 night, 2016A.
2016 WHT; 12 nights, 2016A.
2016 ESO/VLT; 106 hours, P97-100 (LP).
2015 WHT; 9 nights, 2015B.
2015 ESO/VLT; 9 hours, P96.
2015 Hubble Space Telescope; 55 orbits, cycle 23.
2014 ESO/VLT; 28 hours, P95.
2014 ESO/VLT; 5 hours, P94.
2014 Gemini-S Telescope; 30 hours, 2014A.
2014 Magellan Telescope; 4 nights, 2014A.
2013 Magellan Telescope; 5 nights, 2013B.
2013 Keck Telescope; 1 night, 2013B.
2012 Keck Telescope; 1 night, 2013A.
2012 Magellan Telescope; 4 nights, 2013A.
2012 Magellan Telescope; 4 nights, 2012B.
2011 IRAM 30m Telescope; 64 hours, 2011B.

Teaching and Advising

2021- Medical Physics; School of Medicine, University of Milano-Bicocca.
2019- Astrophysics Laboratory; MSc at University of Milano-Bicocca.
2018-2019 Radiative processes in astrophysics; PhD lecture series at Durham University.
2018 The role of baryonic process in galaxy formation and evolution; PhD lecture series at University of Milano-Bicocca.
2016-2017 PHYS2651: Physics in Society, BSc at Durham University.
2014-2019 PHYS1081: Introduction to Astronomy, BSc at Durham University.
2014-2018 PHYS1101: Discovery Skills in Physics, BSc at Durham University.
2009 Ay2: Overview of the Universe, BSc at UCSC.

PhD Students Mr. Georg Herzog (2020-), University of Milano-Bicocca.
Mr. Calvin Sykes (2017-2021), Durham University (PhD, 2021).
Ms. Louise Welsh (2017-2021), Durham University (PhD, 2021).
Mr. Ruari Mackenzie (2014-2018), Durham University (PhD, 2018).

Mr. Greg Ashworth (2014-2018), Durham University (PhD, 2018).

PDRAs Dr. Trystyn Berg (2021-), University of Milano-Bicocca.
Dr. Louise Welsh (2021-), University of Milano-Bicocca.
Dr. Alessia Longobardi (2021-2023), University of Milano-Bicocca.
Dr. Emma Lofthouse (2018-2023), Durham University, University of Milano-Bicocca.
Dr. Rajeshwari Dutta (2019-2022), Durham University, University of Milano-Bicocca.
Dr. Alejandro Benitez Llambay (2021-2022), University of Milano-Bicocca.
Dr. Matteo Fossati (2018-2021), Durham University, University of Milano-Bicocca.
Dr. Elisabeta Lusso (2017-2019), Junior Research Fellow, Durham University.
Dr. Richard Bielby (2017-2019), Durham University.

Membership and Activities

2023- Co-lead of the outreach project "Un nuovo sguardo sul cielo di Milano" funded by NextGenerationEU
2023- Steering Committee, Bicocca Centre for Quantitative Cosmology, Dipartimenti di Eccelenza 2023
2022- Member of the International Astronomical Union
2021- Member of the Euclid Consortium
2021- Member of the MOSAIC/ELT Science working groups "First Light"and "Inventory of matter"
2021- Member of the Science Working Group, WEAVE survey
2020- Coordinator of Absorption Line Studies in the Quasar Working Group, WEAVE survey
2020 Chair of PhD Admission Committee, Physics Department, University of Milano-Bicocca
2020 Panel Member, USA National Science Foundation
2018- Peer reviewer, Nature
2018- Peer reviewer, European Research Council
2017- Peer reviewer, Nature Astronomy
2016-2018 Member of Van Mildert College Council, Durham University
2016- HIRES/ELT Galaxy and IGM Working Group
2012- Peer reviewer, Astrophysical Journal
2012- Peer reviewer, Monthly Notices of the Royal Astronomical Society
2012- Peer reviewer, Astronomy and Astrophysics
2011-2012 Graduate Student Mentor, UCSC Astronomy & Astrophysics Department
2011-2015 Member, European Physical Society
2011-2012 Member, American Astronomical Society
2008-2015 Member, Società Italiana di Fisica

Refereed publications

1. Revalski, M., et al. 2024, ApJ in press (arXiv:2403.17047). *The MUSE Ultra Deep Field (MUDF). V. Characterizing the Mass-Metallicity Relation for Low Mass Galaxies at* $z \approx 1-2$.

2. Siressi, M., et al. 2024, AJ in press (arXiv:2402.10270). *CLusters in the Uv as EngineS (CLUES). II. Sub-kpc scale outflows driven by stellar feedback.*
3. Pensabene, A, et al. 2024, A&A in press (arXiv:2401.04765). *ALMA survey of a massive node of the Cosmic Web at $z \sim 3$. I. Discovery of a large overdensity of CO emitters.*
4. Dutta, R., Acebron, A., **Fumagalli, M.** et al. 2024, MNRAS in press (arXiv:2401.03024). *Probing coherence in metal absorption towards multiple images of strong gravitationally lensed quasars.*
5. Finn, M.K., et al. 2024, ApJ in press (arXiv:2401.01450). *ALMA-LEGUS I: The Influence of Galaxy Morphology on Molecular Cloud Properties.*
6. Finn, M.K., et al. 2024, ApJ in press (arXiv:2401.01451). *ALMA-LEGUS II: The Influence of Sub-Galactic Environment on Molecular Cloud Properties.*
7. D'Odorico, V., et al. 2023, submitted to Experimental Astronomy (arXiv:2311.16803). *Galaxy Formation and Symbiotic Evolution with the Inter-Galactic Medium in the Age of ELT-ANDES.*
8. Stephenson, H.M.O, et al. 2023, MNRAS submitted (arXiv:2311.10140). *Quasar Sightline and Galaxy Evolution (QSAGE) – III. The mass-metallicity and fundamental metallicity relation in $z \sim 2.2$ galaxies.*
9. Bortolini, G., et al. 2023, MNRAS in press (arXiv:2311.08160). *The spatially resolved star formation history of the dwarf spiral galaxy NGC 5474.*
10. Jin, S., et al. 2023, MNRAS in press (arXiv:2212.03981). *The wide-field, multiplexed, spectroscopic facility WEAVE: Survey design, overview, and simulated implementation.*
11. de Beer, S. et al. 2023, MNRAS, 526, 1850 *Resolving the physics of Quasar Lyα Nebulae (RePhyNe): I. Constraining Quasar host halo masses through Circumgalactic Medium kinematics.*
12. Lusso, E., Nardini, E., **Fumagalli, M.** et al. 2023, MNRAS, 525, 4388. *The MUSE Ultra Deep Field (MUDF). IV. A pair of X-ray weak quasars at the heart of two extended Lyα nebulae.*
13. Jung, D.E. et al. 2023, ApJ, 954, 136. *Universal Upper End of the Stellar Initial Mass Function in the Young and Compact LEGUS clusters.*
14. Longobardi, A., Fossati, M., **Fumagalli, M.** et al. 2023, RASTI, 2, 470. *Towards an automatic approach to modelling the circumgalactic medium: new tools for mock making and fitting of metal profiles in large surveys.*
15. Welsh, L., Cooke, R., **Fumagalli, M.**, Pettini, M. 2023, MNRAS, 525, 527. *Towards ultra metal-poor DLAs: linking the chemistry of the most metal-poor DLA to the first stars.*
16. Teh, J.W. et al. 2023, MNRAS, 524, 1191. *Constraining the LyC escape fraction from LEGUS star clusters with SIGNALS HII region observations: A pilot study of NGC 628.*
17. Arrigoni Battaia, F. et al. 2023, A%A, 676, 51. *JCMT/SCUBA-2 uncovers an excess of 850μ m counts on megaparsec scales around high-redshift quasars. Characterization of the overdensities and their alignment with the quasars' Lyα nebulae.*
18. Urbano Stawinski, S.M et al. 2023, ApJ, 951, 135. *On the Metallicities and Kinematics of the Circumgalactic Media of Damped Lyα Systems at $z \sim 2.5$.*
19. Saccardi, A., Salvadori, S., D'Odorico, V. et al. 2023, ApJ, 948, 35, *Evidence of First Stars-enriched Gas in High-redshift Absorbers.*

20. Beckett, A., Morris, S.L., **Fumagalli, M.** et al. 2023, MNRAS, 521, 1113. *Modelling gas around galaxy pairs and groups using the Q0107 quasar triplet.*
21. Dutta, R., Fossati, M., **Fumagalli, M.** et al. 2023, MNRAS, 508, 4573. *Metal line emission from galaxy haloes at $z \approx 1$.*
22. Revalski, M., Rafelski, M., **Fumagalli, M.**, Fossati, M. et al. 2023, ApJS, 265, 40. *The MUSE Ultra Deep Field (MUDF) – III: Hubble Space Telescope WFC3 Grism Spectroscopy and Imaging.*
23. Galbiati, M., **Fumagalli, M.**, Fossati, M. et al. 2023, MNRAS, 524, 3474. *MUSE Analysis of Gas around Galaxies (MAGG) – V: Linking ionized gas traced by CIV and SiIV absorbers to Lyα emitting galaxies at $z \approx 3.0 - 4.5$.*
24. Cook, D.O., et al. 2023, MNRAS, 519, 3749. *Fraction of Stars in Clusters for the LEGUS Dwarf Galaxies.*
25. Luo, R., et al. 2023, MNRAS, 521, 6266. *Tracing the kinematics of the whole ram pressure stripped tails in ESO 137-001.*
26. Lofthouse, E., **Fumagalli, M.**, Fossati, M. et al. 2023, MNRAS, 518, 305. *MUSE Analysis of Gas around Galaxies (MAGG) – IV: The gaseous environment of $z \approx 3 - 4$ Lyα emitting galaxies.*
27. Herzog, G., Benitez-Llambay, A. **Fumagalli, M.** 2023, MNRAS, 518, 6305. *The present-day gas content of simulated field dwarf galaxies.*
28. Boselli, A. et al. 2023, A&A 669, 73. *A Virgo Environmental Survey Tracing Ionised Gas Emission (VESTIGE).XIV. The main sequence relation in a rich environment down to $M_{star} \approx 10^6$ $M_\odot$.*
29. Siressi, M. et al. 2022, AJ, 164, 208. *CLusters in the UV as EngineS (CLUES). I. Survey Presentation and FUV Spectral Analysis of the Stellar Light.*
30. Beckett, A., Morris, S.L., **Fumagalli, M.** et al. 2022, MNRAS 517, 1020. *Signatures of extended discs and outflows in the circumgalactic medium using the Q0107 quasar triplet.*
31. Mintz, A., Rafelski, M., Jorgenson, R.A., **Fumagalli, M.** 2022, AJ, 164, 51. *Constraining the Size of the Circumgalactic Medium Using the Transverse Autocorrelation Function of C IV Absorbers in Paired Quasar Spectra.*
32. Robert, P.F., Murphy, M.T., O'Meara, J.M, Crighton, N.H.M, **Fumagalli, M.** 2022, MNRAS, 514, 3559. *Discovery of three new near-pristine absorption clouds at $z = 2.6 - 4.4$.*
33. Dalton, T., Morris, S.L., **Fumagalli, M.**, Gatuzz, E. 2022, MNRAS, 513, 822. *Probing the physical properties of the intergalactic medium using quasars.*
34. Welsh, L., Cooke, R.,**Fumagalli, M.**, Pettini, M.. 2022, ApJ, 929, 158. *Oxygen-enhanced extremely metal-poor DLAs: A signpost of the first stars?*
35. Lehner, N. et al. 2022, ApJ, 936, 156. *KODIAQ-Z: Metals and Baryons in the Cool Intergalactic and Circumgalactic Gas at 2.2<z<3.6.*
36. Arrigoni Battaia, F. et al. 2022, ApJ, 930, 72. *A Multiwavelength Study of ELAN Environments (AMUSE^2): Mass budget, satellites spin alignment and gas infall in a massive $z \sim 3$ quasar host halo.*
37. Pedrini, A. et al. 2022, MNRAS, 511, 5180. *MUSE sneaks a peek at extreme ram-pressure stripping events – V. Towards a complete view of the galaxy cluster A1367*

38. Nowotka, M. et al. 2022, A&A, 658, 77. *A Multiwavelength Study of ELAN Environments (AMUSE^2): Ubiquitous dusty star-forming galaxies associated with enormous Lyα nebulae on megaparsec scales.*
39. Orozco-Duarte, R. et al. 2022, MNRAS, 509, 522. *Synthetic photometry of OB star clusters with stochastically sampled IMFs: analysis of models and HST observations.*
40. Benitez-Llambay, A., **Fumagalli, M.** 2021, ApJL, 921, 9. *The Tail of Late-Forming Dwarf Galaxies in ΛCDM.*
41. Dutta, R., **Fumagalli, M.**, Fossati, M. et al. 2021, MNRAS, 508, 4573. *Metal-enriched halo gas across galaxy overdensities over the last 10 billion years.*
42. Dalton, T., Morris, S.L., **Fumagalli, M.**, Gatuzz, E. 2021, MNRAS, 508, 1701. *Probing the physical properties of the intergalactic medium using blazars.*
43. Menon, S.H. et al. 2021, MNRAS, 507, 5542. *The Dependence of the Hierarchical Distribution of Star Clusters on Galactic Environment.*
44. Beckett, A., Morris, S.L., **Fumagalli, M.** et al. 2021, MNRAS, 506, 2574. *The relationship between gas and galaxies at $z < 1$ using the Q0107 quasar triplet.*
45. Della Bruna, L. et al., 2021, A&A, 650, 103. *Studying the ISM at ~ 10 pc scale in NGC 7793 with MUSE – II. Constraints on the oxygen abundance and ionising radiation escape.*
46. Fossati, M., **Fumagalli, M.**, Lofthouse, E.K. et al. 2021, MNRAS, 503, 3044. *MUSE Analysis of Gas around Galaxies (MAGG) - III: The gas and galaxy environment of $z = 3 - 4.5$ quasars.*
47. Dalton, T., Morris, S.L., **Fumagalli, M.**. 2021, MNRAS, 502, 5981. *Probing the physical properties of the intergalactic medium using gamma-ray bursts.*
48. Berg, T.A.M, **Fumagalli, M.**, D'Odorico, V. et al. 2021, MNRAS, 502, 4009. *Sub-damped Lyman alpha systems in the XQ-100 survey II – Chemical evolution at $2.4 < z < 4.3$.*
49. Joshi, R., **Fumagalli, M.**, Srianand, R. et al. 2021, ApJ, 908, 129. *Discovery of a damped Lyα galaxy at $z \sim 3$ towards the quasar SDSS J011852+040644.*
50. Welsh, L., Cooke, R.,**Fumagalli, M.**. 2021, MNRAS, 500, 5214. *The stochastic enrichment of Population II stars.*
51. Dutta, R., **Fumagalli, M.**, Fossati, M. et al. 2020, MNRAS, 499, 5022. *MUSE Analysis of Gas around Galaxies (MAGG) - II: Metal-enriched halo gas around z 1 galaxies.*
52. Decataldo, D., Lupi, A., Ferrara, A., Pallottini, A. **Fumagalli, M.** 2020, MNRAS, 497, 4718. *Shaping the structure of a GMC with radiation and winds.*
53. **Fumagalli, M.**, Fotopoulou, S., Thomson, L. 2020, MNRAS, 498, 1951. *Detecting neutral hydrogen at $z > 3$ in large spectroscopic surveys of quasars.*
54. Stott, J.P. et al. 2020, MNRAS, 497, 3083. *Quasar Sightline and Galaxy Evolution (QSAGE) survey – II. Galaxy overdensities around UV luminous quasars at $z = 1 - 2$.*
55. Bielby, R., **Fumagalli, M.**, Fossati, M. et al. 2020, MNRAS, 493, 5336. *Into the Lyα jungle: exploring the circumgalactic medium of galaxies at $z \sim 4 - 5$ with MUSE.*
56. Cooke, R., Welsh, L., **Fumagalli, M.**, Pettini, M. 2020, MNRAS, 494, 4884. *A limit on Planck-scale froth with ESPRESSO.*
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