

SEBASTIAN MARINO

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Research Interests

Exoplanetary systems, with a special emphasis on their exocometary component. How do exocomets form? How do planets and exocomets interact? Can exocomets deliver volatiles to terrestrial planets? My research tackles these questions through the use of observations and numerical simulations to study the evolution of exocometary material, including the interaction with planets.

Career

Senior Research fellow, Department of Physics & Astronomy, University of Exeter, UK Jan 2023 -
Research fellow, Jesus College & IoA, University of Cambridge, UK Oct 2020 - Dec 2022
Postdoctoral researcher, Max Planck Institute for Astronomy, Heidelberg, Germany Nov 2018 - Sep 2020
PhD in Astronomy, Institute of Astronomy, University of Cambridge, UK Oct 2015 - Oct 2018
PhD thesis: *Exocometary discs at large radii and their inward transport via planet scattering*.
Supervisor: Prof. M. C. Wyatt
MS in Astronomy with highest honours, Universidad de Chile, Chile. GPA 100% Mar 2014 - July 2015
MS thesis: *Dust traps and warps in transitional protoplanetary discs*
Supervisor: Prof. S. Casassus
BS in Astronomy with highest honours, Universidad de Chile, Chile. GPA 90% Mar 2010 - Dec 2013

Fellowships & Awards

2022 **University Research fellowship by the Royal Society.** £1M for 5 years to fund me, PhD student and PDRA with a possibility of 3 year extension.
2019 **Junior Research fellowship by Jesus College, University of Cambridge** (1 position/400 applicants).
2018 **Shortlisted for Elsevier early career award**, top young researcher in physical sciences in the UK.
2017 **NASA Hubble/Sagan fellowship**, declined to take position at MPIA, Heidelberg.
2016 **Murdin Prize**, best student publication of the year at Institute of Astronomy.
2015 **Cambridge Trust Scholarship**, 3-year Ph.D. full funding.
2014 **Chilean CONICYT scholarship**, 2-year M.S. full funding. I obtained the highest score in the country.
2013 **Top student in Astronomy.** Ranked first of my class over 4 years of undergraduate studies.
2010-2013 Outstanding student, in top 5% of 5,000 students at the faculty of physical and mathematical sciences.

Key research achievements

- PI of first ALMA large program dedicated to debris discs (> 40 members and equivalent value of US\$1.7M).
- PI of cycle 1 James Webb Space Telescope program to hunt for exoplanets (equivalent value of US\$1.3M).
- First warped/misaligned protoplanetary disc (Marino et al. 2015, > 170 citations).
- First detection of exocometary gas around a Solar-type star, (Marino et al. 2016, > 90 citations).
- First detection of CO outgassed from scattered exocomets (Marino et al. 2017, > 60 citations).
- Discovery of 3 out of 4 gaps seen in debris discs (Marino et al. 2018, 2019, 2020a, > 90 citations).
- First population synthesis model of exocometary gas (Marino et al. 2020b, > 15 citations).

Key research skills

- Reduction of interferometric sub-mm and radio data (e.g. Marino et al. 2015b).
- Continuum and spectral analysis of sub-millimetre data (e.g. Marino et al. 2016).
- Matched filter to boost signal-to-noise ratio of noisy interferometric data. (e.g. Marino et al. 2016, 2017a)
- Image reconstruction from optical interferometric data (e.g. Lacour et al. 2016, Perez et al. 2020).
- 3D Radiative transfer of discs at multiple frequencies ([DISC2RADMC](#), Marino et al. 2015a, 2015b).
- MCMC methods to fit radiative transfer disc models to observations (e.g. Marino et al. 2016).
- Simulations of interferometric data/visibilities (e.g. Marino et al. 2018a).
- N-body simulations of planet-disc interactions (e.g. Marino et al. 2018a, 2018b).

- Collisional evolution of debris discs (e.g. Marino et al. 2017b).
- Viscous evolution and photodissociation simulations of exocometary gaseous discs ([EXOGAS](#), Marino et al. 2020).

Selected telescope observing proposals (PI of 180h of ALMA and 11h of JWST time, equivalent to US\$3.2M)

PI on “ALMA survey to Resolve exoKuiper belt Substructures”, ALMA large program cycle 9 (150h).
 PI on “Searching for Low Mass Planets in Debris Disk Gaps”, JWST cycle 1 (11h).
 PI on “Unveiling the planetary architecture around the Solar analogue HD107146”, ALMA cycle 7, 2019 (12h, B grade).
 PI on “Debris discs around UCDs, what lies beyond TRAPPIST-1h?”, ALMA cycle 5, 2017 (8h, A grade).
 PI on “Double-ring debris discs at 10s of au: probing how far out planets can form”, ALMA cycle 4, 2016 (6h, B grade).
 PI on “Spatial characterisation of Eta Corvi’s exozodi”, LBTI 2020A (10h).
 PI on “Spectroscopic study of newly discovered extreme debris systems”, MPG/ESO/FEROS 2020A (16h).
 Co-I on “High Contrast Imaging of Exoplanets and Exoplanetary Systems”, JWST ERS program (52h, PI: S. Hinkley).
 Co-I on “Search for Planetary Sculptors in a Sample of Debris Disks”, JWST cycle 1 (23h, PI: S. Hinkley).
 Co-I on “How early on does planetesimal formation take place?”, ALMA cycle 6, 2018, (40h, B grade, PI: M. Wyatt).
 Co-I on “The frontier of rocky planet formation”, ALMA cycle 5, 2017, (30h, B grade, PI: G. Kennedy).
 Co-I on “Probing warm dust inside the double-ringed debris disk HD 107146”, VLT/SPHERE, 2017 (2h, PI: S. Perez).
 Co-I on “The continuum asymmetry of MWC758: dust trap or companion?”, VLA, 2016 (PI: S. Casassus).

Selected conference contributions & colloquia

Dec 2023	ALMA at ten years: past, present and future, Puerto Varas, Chile	Invited talk
Aug 2023	Cosmic Dust conference, Kitakyushu, Japan	Invited talk
June 2023	Colloquium at Astrophysics group, Imperial College, UK	Invited colloquium
Oct 2022	Colloquium at Astrophysics group, Leeds University, UK	Invited colloquium
May 2022	Astrobiology Science Conference 2021, Atlanta, USA	Talk
April 2022	Colloquium at School of Physics, Trinity College Dublin, Ireland	Invited colloquium
July 2021	European Astronomical Society Annual Meeting 2021	Talk
July 2021	Colloquium at Mullard Space Science Laboratory, UK	Invited colloquium
June 2021	Colloquium at Warwick astronomy & astrophysics group, UK	Invited colloquium
June 2021	Colloquium at Astrophysical Institute, Friedrich Schiller University Jena, Germany	Invited colloquium
June 2021	Colloquium at National Astronomical Observatory of Japan, Japan	Invited colloquium
Apr 2021	UK exoplanet meeting 2021	Talk
Jan 2021	Advanced School “Planets, exoplanets and their systems”,	Invited lecture
Sep 2020	International Max Planck Research Summer School,	Invited talk
July 2020	Exoplanets III conference, Germany	Plenary talk
July 2020	European Astronomical Society Annual Meeting 2020,	Talk
Mar 2020	Colloquium at Max Planck Institute for Astronomy, Heidelberg, Germany	Colloquium
Sep 2019	“Current and future trends in debris disc science II” workshop, Budapest, Hungary	Talk
Jul 2019	“Great barriers in planet formation” conference, Palm Cove, Australia	Talk
Jun 2019	“Planetary Dynamics” conference, Heidelberg, Germany	Talk
Mar 2018	“Diversis mundi: The Solar System in an Exoplanetary context” conference, ESO, Chile	Talk
Feb 2018	“Water during planet formation and evolution” workshop, Zurich, Switzerland	Talk
Feb 2018	“The Origin and Evolution of Comets” Royal Astronomical Society meeting, London, UK	Talk
Jan 2018	Colloquium at Astrophysics department, University of Exeter, UK	Invited Colloquium
Sept 2017	“Planet Formation and Evolution” conference, Jena, Germany	Talk
Jan 2017	Colloquium at Department of Astronomy, Universidad de Chile	Invited Colloquium
Oct 2016	“From discs to planets” workshop, Konkoly Observatory, Budapest, Hungary	Talk
May 2016	“Resolving planet formation in the era of ALMA and extreme AO” conference, ESO, Chile	Talk

Mentoring

2022	Research supervisor of summer student Zuzanna Urszula, University of Cambridge.
2022	Research supervisor of intern undergraduate student J. Paterakis, University of Cambridge.
2021-present	Research supervisor of Master’s student J. Terrill, University of Cambridge (Terrill+submitted).
2021-present	Research supervisor of summer student A. Imaz Blanco, University of Cambridge (Imaz Blanco+2023).
2020-2021	Research supervisor of Master’s student E. Suslina, University of Cambridge.
2020-2021	Research supervisor of summer student E. Miller, MPIA Heidelberg (Miller+2021).
2018-present	Helping with supervision of PhD student J. Lovell, University of Cambridge.
2016-2017	Supervisor, 12 students, Statistical Physics, University of Cambridge.
2015	Supervisor, 14 students, Research Workshop, Universidad de Chile.
2014	Supervisor, 25 students, Introduction to Cosmology, Universidad de Chile.

- 2014 Supervisor, 36 students, Stellar Astrophysics, Universidad de Chile.
- 2013 Supervisor, 64 students, Electromagnetism, Universidad de Chile.

Large collaborations

- PI of cycle 9 ALMA large program ARKS. 45 members and equivalent value of US\$1.7M.
- Co-I of ALMA survey “REsolved ALMA Survey Of Nearby Stars” (cycle 5, 20h, 26 members).
- Co-I of LIFE space mission (proposed mission to characterize terrestrial exoplanet atmospheres, >100 members).
- Co-I NASA XRP program “Studying the Habitable Zones of Nearby Main Sequence Stars” (PI: Steve Ertel).
- Co-I JWST ERS program “High Contrast Imaging of Exoplanets and Exoplanetary Systems” (PI: Sasha Hinkley).
- Co-I DFG research unit “From Transition Disks to Debris Disks” (PI: Til Birnstiel).

Professional service

Referee, Monthly Notices of the Royal Astronomical Society
 Referee, The Astrophysical Journal
 Referee, The Astronomical Journal
 Referee, Astronomy & Astrophysics
 Referee, Publications of the Astronomical Society of the Pacific
 Reviewer, Stephen Hawking Fellowship
 Reviewer, Junior Research Fellowships, Jesus College
 Reviewer, ALMA small programs
 2021/2022 Environment committee member, Jesus College, University of Cambridge
 2021/2022 Teaching committee member, Institute of Astronomy, University of Cambridge
 2020 Telescope Time Allocation Committee Member, MPA
 2023 JWST cycle 2 external reviewer

Selected outreach activities

Talks and events:

2022 Collaboration with artist Tamara Froud to create mosaic sculpture presented at exhibition “Constellations” at Chester Cathedral, UK.
 2021 Outreach talk for Women Probus group in Vancouver.
 2021 Outreach talk for Donors Garden Party, Jesus College.
 2020 Lecture about ALMA and exocomets to architecture students as part of the course *OuterScape*.
 2016 Managing outreach activity “Galaxy Under Construction” for 500 people at Institute of Astronomy, Cambridge.
 2016 Assisting public observing nights at the Institute of Astronomy, Cambridge.
 2014-2015 Astronomy talks to general public in the National Astronomical Observatory of Chile.
 2014-2015 Art and astronomy exposition at the Contemporary Art Museum in Santiago, Chile.
 2013 Staff at the touristic observatory OAA, giving talks and managing telescopes.

Press releases:

2021 Press release “Astronomers detect gas released in a giant planetary collision” based on Nature paper. Coverage by The Independent, The Daily Mail, among others.
 2016 Press release “First evidence of icy comets orbiting a sun-like star”, coverage by Astronomy magazine, Daily Mail, LA times, IFL science, etc.
 2015 Press release “Shadows cast by a warp in a planet forming system”, coverage by phys.org, ESO, space.com, pourlascience.fr, etc.

Articles:

2021 “¿Quiéén trajo el agua?”, article by me and published by Fundación Mar Adentro.
 2020 “How Did the TRAPPIST-1 Planets Get Their Water?” by Matt Williams at Universe Today.
 2019 “Comet-Blasted Star May Be a Rerun of the Solar System’s Birth” by Nola Taylor at Scientific American.
 2017 “Scientists investigate debris disc in a nearby planetary system” by Tomasz Nowakowski at physics.org.

Organised conferences

LOC for “Binary Stars” conference, Cambridge, UK, 2016
 LOC for “Current and future trends in debris disc science II” workshop, Budapest, Hungary, 2019
 LOC for “Planetary Dynamics” conference, Heidelberg, Germany, 2019

IT Skills & Languages

Computer Languages	Python, JAVA, C, MATLAB, \LaTeX , Linux, HTML
Developed Python Packages	EXOGAS , DISC2RADMC
Analysis and modelling software	CASA, RADMC3D, MIRA, SQUEEZE, MERCURY, Rebound
Tools	jupyter notebooks, Emacs, github

Spanish, native language

English, fluent (speaking, reading, writing)

TOEFL iBT 106

First author publications (> 680 citations):

1. **Marino, S.**, Perez, S., & Casassus, S., “*Shadows Cast by a Warp in the HD 142527 Protoplanetary Disk*”, ApJ, vol. 798, p L44, 2015 187 citations
2. **Marino, S.**, Matrà, L., Stark, C., Wyatt, M. C., Casassus, S., Kennedy, G., Rodriguez, D., Zuckerman, B., Perez, S., Dent, W. R. F., Kuchner, M., Hughes, A. M., Schneider, G., Steele, A., Roberge, A., Donaldson, J., & Nesvold, E., “*Exocometary gas in the HD 181327 debris ring*”, MNRAS, vol. 460, p 2933, 2016 105 citations
3. **Marino, S.**, Wyatt, M. C., Panić, O., Matrà, L., Kennedy, G. M., Bonsor, A., Kral, Q., Dent, W. R. F., Duchene, G., Wilner, D., Lisse, C. M., Lestrade, J.-F., & Matthews, B., “*ALMA observations of the η Corvi debris disc: inward scattering of CO-rich exocomets by a chain of 3-30 M_{\oplus} planets?*”, MNRAS, vol. 465, p 2595, 2017 73 citations
4. **Marino, S.**, Carpenter, J., Wyatt, M. C., Booth, M., Casassus, S., Faramaz, V., Guzman, V., Hughes, A. M., Isella, A., Kennedy, G. M., Matrà, L., Ricci, L., & Corder, S., “*A gap in the planetesimal disc around HD 107146 and asymmetric warm dust emission revealed by ALMA*”, MNRAS, vol. 479, p 5423, 2018 54 citations
5. **Marino, S.**, Casassus, S., Perez, S., Lyra, W., Roman, P. E., Avenhaus, H., Wright, C. M., & Maddison, S. T., “*Compact Dust Concentration in the MWC 758 Protoplanetary Disk*”, ApJ, vol. 813, p 76, 2015 45 citations
6. **Marino, S.**, Yelverton, B., Booth, M., Faramaz, V., Kennedy, G. M., Matrà, L., & Wyatt, M. C., “*A gap in HD 92945’s broad planetesimal disc revealed by ALMA*”, MNRAS, vol. 484, p 1257, 2019 37 citations
7. **Marino, S.**, Zurlo, A., Faramaz, V., Milli, J., Henning, T., Kennedy, G. M., Matrà, L., Pérez, S., Delorme, P., Cieza, L. A., & Hughes, A. M., “*Insights into the planetary dynamics of HD 206893 with ALMA*”, MNRAS, vol. 498, p 1319, 2020 29 citations
8. **Marino, S.**, Flock, M., Henning, T., Kral, Q., Matrà, L., & Wyatt, M. C., “*Population synthesis of exocometary gas around A stars*”, MNRAS, vol. 492, p 4409, 2020 27 citations
9. **Marino, S.**, Bonsor, A., Wyatt, M. C., & Kral, Q., “*Scattering of exocomets by a planet chain: exozodi levels and the delivery of cometary material to inner planets*”, MNRAS, vol. 479, p 1651, 2018 26 citations
10. **Marino, S.**, Wyatt, M. C., Kennedy, G. M., Holland, W., Matrà, L., Shannon, A., & Ivison, R. J., “*ALMA observations of the multiplanet system 61 Vir: what lies outside super-Earth systems?*”, MNRAS, vol. 469, p 3518, 2017 23 citations
11. **Marino, S.**, “*Constraining planetesimal stirring: how sharp are debris disc edges?*”, MNRAS, vol. 503, p 5100, 2021 15 citations
12. **Marino, S.**, González-Gaitán, S., Förster, F., Folatelli, G., Hamuy, M., & Hsiao, E., “*Searching for Light Echoes Due to Circumstellar Matter in SNe Ia Spectra*”, ApJ, vol. 806, p 134, 2015 5 citations
13. **Marino, S.**, Wyatt, M. C., Kennedy, G. M., Kama, M., Matrà, L., Triaud, A. H. M. J., & Henning, T., “*Searching for a dusty cometary belt around TRAPPIST-1 with ALMA*”, MNRAS, vol. 492, p 6067, 2020 4 citations
14. **Marino, S.**, Cataldi, G., Jankovic, M. R., Matrà, L., & Wyatt, M. C., “*Vertical evolution of exocometary gas - I. How vertical diffusion shortens the CO lifetime*”, MNRAS, vol. 515, p 507, 2022 1 citations

Second & third author publications:

15. Casassus, S., **Marino, S.**, Pérez, S., Roman, P., Dunhill, A., Armitage, P. J., Cuadra, J., Wootten, A., van der Plas, G., Cieza, L., Moral, V., Christiaens, V., & Montesinos, M., “*Accretion Kinematics through the Warped Transition Disk in HD142527 from Resolved CO(6-5) Observations*”, ApJ, vol. 811, p 92, 2015 98 citations
16. Casassus, S., Wright, C. M., **Marino, S.**, Maddison, S. T., Wootten, A., Roman, P., Pérez, S., Pinilla, P., Wyatt, M., Moral, V., Ménard, F., Christiaens, V., Cieza, L., & van der Plas, G., “*A Compact Concentration of Large Grains in the HD 142527 Protoplanetary Dust Trap*”, ApJ, vol. 812, p 126, 2015 88 citations
17. Matrà, L., **Marino, S.**, Kennedy, G. M., Wyatt, M. C., Öberg, K. I., & Wilner, D. J., “*An Empirical Planetesimal Belt Radius-Stellar Luminosity Relation*”, ApJ, vol. 859, p 72, 2018 65 citations
18. Kral, Q., **Marino, S.**, Wyatt, M. C., Kama, M., & Matrà, L., “*Imaging [CI] around HD 131835: reinterpreting young debris discs with protoplanetary disc levels of CO gas as shielded secondary discs*”, MNRAS, vol. 489, p 3670, 2019 52 citations
19. Pinilla, P., Pascucci, I., & **Marino, S.**, “*Hints on the origins of particle traps in protoplanetary disks given by the $M_{\text{dust}} - M_{\star}$ relation*”, A&A, vol. 635, p A105, 2020 43 citations

20. Kennedy, G. M., **Marino, S.**, Matrà, L., Panić, O., Wilner, D., Wyatt, M. C., & Yelverton, B., “*ALMA observations of the narrow HR 4796A debris ring*”, MNRAS, vol. 475, p 4924, 2018 34 citations
21. Casassus, S., **Marino, S.**, Lyra, W., Baruteau, C., Vidal, M., Wootten, A., Pérez, S., Alarcon, F., Barraza, M., Cárcamo, M., Dong, R., Sierra, A., Zhu, Z., Ricci, L., Christiaens, V., & Cieza, L., “*Cm-wavelength observations of MWC 758: resolved dust trapping in a vortex*”, MNRAS, vol. 483, p 3278, 2019 24 citations
22. Faramaz, V., **Marino, S.**, Booth, M., Matrà, L., Mamajek, E. E., Bryden, G., Stapelfeldt, K. R., Casassus, S., Cuadra, J., Hales, A. S., & Zurlo, A., “*A Detailed Characterization of HR 8799’s Debris Disk with ALMA in Band 7*”, AJ, vol. 161, p 271, 2021 22 citations
23. Barraza-Alfaro, M., Flock, M., **Marino, S.**, & Pérez, S., “*Observability of the vertical shear instability in protoplanetary disk CO kinematics*”, A&A, vol. 653, p A113, 2021 18 citations
24. Pérez, S., **Marino, S.**, Casassus, S., Baruteau, C., Zurlo, A., Flores, C., & Chauvin, G., “*Upper limits on protolunar disc masses using ALMA observations of directly imaged exoplanets*”, MNRAS, vol. 488, p 1005, 2019 18 citations
25. Read, M. J., Wyatt, M. C., **Marino, S.**, & Kennedy, G. M., “*Shaping HR8799’s outer dust belt with an unseen planet*”, MNRAS, vol. 475, p 4953, 2018 17 citations
26. Lovell, J. B., **Marino, S.**, Wyatt, M. C., Kennedy, G. M., MacGregor, M. A., Stapelfeldt, K., Dent, B., Krist, J., Matrà, L., Kral, Q., Panić, O., Pearce, T. D., & Wilner, D., “*High-resolution ALMA and HST images of q^1 Eri: an asymmetric debris disc with an eccentric Jupiter*”, MNRAS, vol. 506, p 1978, 2021 11 citations
27. Miller, E., **Marino, S.**, Stammer, S. M., Pinilla, P., Lenz, C., Birnstiel, T., & Henning, T., “*The formation of wide exoKuiper belts from migrating dust traps*”, MNRAS, vol. 508, p 5638, 2021 9 citations
28. Mesa, D., **Marino, S.**, Bonavita, M., Lazzoni, C., Fontanive, C., Pérez, S., D’Orazi, V., Desidera, S., Gratton, R., Engler, N., Henning, T., Janson, M., Kral, Q., Langlois, M., Messina, S., Milli, J., Pawellek, N., Perrot, C., Rigliaco, E., Rickman, E., Squicciarini, V., Vigan, A., Wahhaj, Z., Zurlo, A., Boccaletti, A., Bonnefoy, M., Chauvin, G., De Caprio, V., Feldt, M., Gluck, L., Hagelberg, J., Keppler, M., Lagrange, A.-M., Launhardt, R., Maire, A.-L., Meyer, M., Moeller-Nilsson, O., Pavlov, A., Samland, M., Schmidt, T., & Weber, L., “*Limits on the presence of planets in systems with debris discs: HD 92945 and HD 107146*”, MNRAS, vol. 503, p 1276, 2021 5 citations
29. Lovell, J. B., Kennedy, G. M., **Marino, S.**, Wyatt, M. C., Ansdell, M., Kama, M., Manara, C. F., Matrà, L., Rosotti, G., Tazzari, M., Testi, L., & Williams, J. P., “*Rapid CO gas dispersal from NO Lup’s class III circumstellar disc*”, MNRAS, vol. 502, p L66, 2021 3 citations
30. Imaz Blanco, A., Marino, S., Matrà, L., Booth, M., Carpenter, J., Faramaz, V., Henning, T., Hughes, A. M., Kennedy, G. M., Pérez, S., Ricci, L., & Wyatt, M. C., “*Inner edges of planetesimal belts: collisionally eroded or truncated?*”, arXiv e-prints, vol. p arXiv:2304.12337, 2023

Remaining co-author publications:

31. Price, D. J., Cuello, N., Pinte, C., Mentiplay, D., Casassus, S., Christiaens, V., Kennedy, G. M., Cuadra, J., Sebastian Perez, M., **Marino, S.**, Armitage, P. J., Zurlo, A., Juhasz, A., Ragusa, E., Laibe, G., & Lodato, G., “*Circumbinary, not transitional: on the spiral arms, cavity, shadows, fast radial flows, streamers, and horseshoe in the HD 142527 disc*”, MNRAS, vol. 477, p 1270, 2018 119 citations
32. Perez, S., Dunhill, A., Casassus, S., Roman, P., Szulágyi, J., Flores, C., **Marino, S.**, & Montesinos, M., “*Planet Formation Signposts: Observability of Circumplanetary Disks via Gas Kinematics*”, ApJ, vol. 811, p L5, 2015 88 citations
33. Casassus, S., Avenhaus, H., Pérez, S., Navarro, V., Cárcamo, M., **Marino, S.**, Cieza, L., Quanz, S. P., Alarcón, F., Zurlo, A., Osses, A., Rannou, F. R., Román, P. E., & Barraza, M., “*An inner warp in the DoAr 44 T Tauri transition disc*”, MNRAS, vol. 477, p 5104, 2018 71 citations
34. Lacour, S., Biller, B., Cheetham, A., Greenbaum, A., Pearce, T., **Marino, S.**, Tuthill, P., Pueyo, L., Mamajek, E. E., Girard, J. H., Sivaramakrishnan, A., Bonnefoy, M., Baraffe, I., Chauvin, G., Olofsson, J., Juhasz, A., Benisty, M., Pott, J.-U., Sicilia-Aguilar, A., Henning, T., Cardwell, A., Goodsell, S., Graham, J. R., Hibon, P., Ingraham, P., Konopacky, Q., Macintosh, B., Oppenheimer, R., Perrin, M., Rantakyro, F., Sadakuni, N., & Thomas, S., “*An M-dwarf star in the transition disk of Herbig HD 142527. Physical parameters and orbital elements*”, A&A, vol. 590, p A90, 2016 70 citations
35. Montesinos, M., Perez, S., Casassus, S., **Marino, S.**, Cuadra, J., & Christiaens, V., “*Spiral Waves Triggered by Shadows in Transition Disks*”, ApJ, vol. 823, p L8, 2016 62 citations

36. Pérez, S., Casassus, S., Hales, A., **Marino, S.**, Cheetham, A., Zurlo, A., Cieza, L., Dong, R., Alarcón, F., Benítez-Llambay, P., Fomalont, E., & Avenhaus, H., “*Long Baseline Observations of the HD 100546 Protoplanetary Disk with ALMA*”, *ApJ*, vol. 889, p L24, 2020 53 citations
37. Cieza, L. A., González-Ruilova, C., Hales, A. S., Pinilla, P., Ruíz-Rodríguez, D., Zurlo, A., Casassus, S., Pérez, S., Cánovas, H., Arce-Tord, C., Flock, M., Kurtovic, N., **Marino, S.**, Nogueira, P. H., Perez, L., Price, D. J., Principe, D. A., & Williams, J. P., “*The Ophiuchus DISC Survey Employing ALMA (ODISEA) - III. The evolution of substructures in massive discs at 3-5 au resolution*”, *MNRAS*, vol. 501, p 2934, 2021 46 citations
38. Matrà, L., Wyatt, M. C., Wilner, D. J., Dent, W. R. F., **Marino, S.**, Kennedy, G. M., & Milli, J., “*Kuiper Belt-like Hot and Cold Populations of Planetesimal Inclinations in the β Pictoris Belt Revealed by ALMA*”, *AJ*, vol. 157, p 135, 2019 45 citations
39. Cieza, L. A., Ruíz-Rodríguez, D., Perez, S., Casassus, S., Williams, J. P., Zurlo, A., Principe, D. A., Hales, A., Prieto, J. L., Tobin, J. J., Zhu, Z., & **Marino, S.**, “*The ALMA early science view of FUor/EXor objects - V. Continuum disc masses and sizes*”, *MNRAS*, vol. 474, p 4347, 2018 45 citations
40. Wyatt, M. C., Bonsor, A., Jackson, A. P., **Marino, S.**, & Shannon, A., “*How to design a planetary system for different scattering outcomes: giant impact sweet spot, maximizing exocomets, scattered discs*”, *MNRAS*, vol. 464, p 3385, 2017 44 citations
41. Baruteau, C., Barraza, M., Pérez, S., Casassus, S., Dong, R., Lyra, W., **Marino, S.**, Christiaens, V., Zhu, Z., Carmona, A., Debras, F., & Alarcon, F., “*Dust traps in the protoplanetary disc MWC 758: two vortices produced by two giant planets?*”, *MNRAS*, vol. 486, p 304, 2019 43 citations
42. Kral, Q., Wyatt, M. C., Triaud, A. H. M. J., **Marino, S.**, Thébault, P., & Shorttle, O., “*Cometary impactors on the TRAPPIST-1 planets can destroy all planetary atmospheres and rebuild secondary atmospheres on planets f, g, and h*”, *MNRAS*, vol. 479, p 2649, 2018 30 citations
43. van Holstein, R. G., Stolker, T., Jensen-Clem, R., Ginski, C., Milli, J., de Boer, J., Girard, J. H., Wahhaj, Z., Bohn, A. J., Millar-Blanchaer, M. A., Benisty, M., Bonnefoy, M., Chauvin, G., Dominik, C., Hinkley, S., Keller, C. U., Keppler, M., Langlois, M., **Marino, S.**, Ménard, F., Perrot, C., Schmidt, T. O. B., Vigan, A., Zurlo, A., & Snik, F., “*A survey of the linear polarization of directly imaged exoplanets and brown dwarf companions with SPHERE-IRDIS. First polarimetric detections revealing disks around DH Tau B and GSC 6214-210 B*”, *A&A*, vol. 647, p A21, 2021 23 citations
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