

# SEBASTIAN MARINO

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## Research Interests

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Exoplanetary systems, with a special emphasis on their exoplanetary 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

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**Research fellow, Jesus College & IoA, University of Cambridge, UK** *Oct 2020 - Sep 2023*

**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*

## Scholarships & Awards

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**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

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- First warped/misaligned protoplanetary disc (Marino et al. 2015, > 150 citations).
- First detection of exocometary gas around a Solar-type star, (Marino et al. 2016, > 80 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, > 70 citations).
- First population synthesis model of exocometary gas (Marino et al. 2020b, > 10 citations).

## Key research skills

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- 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 an exocometary gaseous disc ([EXOGAS](#), Marino et al. 2020).

## Selected telescope observing proposals (PI of 26h of ALMA and 11h of JWST time)

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- 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 Corvis 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 & seminars

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July 2021	European Astronomical Society Annual Meeting 2021, online	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, online	talk
Jan 2021	Advanced School “Planets, exoplanets and their systems”, online	Invited lecture
Sep 2020	International Max Planck Research Summer School, online	Invited talk
July 2020	Exoplanets III conference, online	Plenary talk
July 2020	European Astronomical Society Annual Meeting 2020, online	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

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- 2021-present Research supervisor of Master student J. Terrill, University of Cambridge (Terrill et al. in prep).  
2021-present Research supervisor of summer student A. Imaz Blanco, University of Cambridge (Imaz et al. in prep).  
2020-2021 Research supervisor of Master student E. Suslina, University of Cambridge.  
2020-2021 Research supervisor of summer student E. Miller, MPIA Heidelberg (Miller et al. 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

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- 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, et al.).

## Professional service

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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, ALMA small programs  
Telescope Time Allocation Committee Member, MPIA

## Selected outreach activities

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### Talks and events:

2021 Outreach talk for Donors Garden Party, Jesus College.  
2020 Lecture about ALMA and exocomets to architecture students as part of the course *OuterSpace*.  
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 “¿Quién 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 Systems 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

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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

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<b>Computer Languages</b>	Python, JAVA, C, MATLAB, L <sup>A</sup> T <sub>E</sub> X, Linux, HTML
<b>Developed Python Packages</b>	<a href="#">EXOGAS</a> , <a href="#">DISC2RADMC</a>
<b>Analysis and modelling software</b>	CASA, RADMC3D, MIRA, SQUEEZE, MERCURY, Rebound
<b>Tools</b>	jupyter notebooks, Emacs, github

Spanish, native language

English, fluent (speaking, reading, writing)

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**First author publications (> 400 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 157 citations
2. **Marino, S.**, Matrà, L., Stark, C., Wyatt, M. C., Casassus, S., Kennedy, G., Rodriguez, D., Zuckerman, B., Pérez, 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 88 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  $\eta$  Corvi debris disc: inward scattering of CO-rich exocomets by a chain of 3-30  $M_{\oplus}$  planets?*”, MNRAS, vol. 465, p 2595, 2017 61 citations
4. **Marino, S.**, Casassus, S., Pérez, 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 40 citations
5. **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 38 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 22 citations
7. **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 21 citations
8. **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 17 citations
9. **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 14 citations
10. **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 12 citations
11. **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
12. **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 3 citations
13. **Marino, S.**, “*Constraining planetesimal stirring: how sharp are debris disc edges?*”, MNRAS, in press, 2021 1 citation

**Second & third author publications:**

14. 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 86 citations
15. 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 79 citations
16. 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 43 citations
17. 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 37 citations
18. 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 25 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 22 citations

20. 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 15 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 14 citations
22. 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 12 citations
23. 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, in press, 2021 2 citations
24. 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 2 citations
25. Miller, E., **Marino, S.**, Stammler, S. M., Pinilla, P., Lenz, C., Birnstiel, T., & Henning, T., “*The formation of wide exoKuiper belts from migrating dust traps*”, MNRAS, vol. p 2021 1 citations
26. Mesa, D., **Marino, S.**, Bonavita, M., Lazzoni, C., Fontanive, C., Perez, 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 disks: HD 92945 and HD 107146*”, MNRAS, in press, 2021 1 citations
27. 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 1 citations
28. Lovell, J. B., **Marino, S.**, Wyatt, M. C., Kennedy, G. M., MacGregor, M. A., Stapelfeldt, K., Dent, B., Krist, J., Matrà, L., Kral, Q., Pani, O., Pearce, T. D., & Wilner, D., “*High-resolution ALMA and HST images of  $\rho^1$  Eri: an asymmetric debris disc with an eccentric Jupiter*”, MNRAS, vol. 506, p 1978, 2021 0 citations
- Remaining co-author publications:**
29. 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 89 citations
30. 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 60 citations
31. 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 59 citations
32. 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 56 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., Romn, P. E., & Barraza, M., “*An inner warp in the DoAr 44 T Tauri transition disc*”, MNRAS, vol. 477, p 5104, 2018 55 citations
34. 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 38 citations
35. 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 34 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 32 citations
37. 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 26 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 Pictoris Belt Revealed by ALMA*”, *AJ*, vol. 157, p 135, 2019 22 citations
39. 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 20 citations
40. 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 18 citations
41. Sepulveda, A. G., Matrà, L., Kennedy, G. M., del Burgo, C., Öberg, K. I., Wilner, D. J., **Marino, S.**, Booth, M., Carpenter, J. M., Davies, C. L., Dent, W. R. F., Ertel, S., Lestrade, J.-F., Marshall, J. P., Milli, J., Wyatt, M. C., MacGregor, M. A., & Matthews, B. C., “*The REASONS Survey: Resolved Millimeter Observations of a Large Debris Disk around the Nearby F Star HD 170773*”, *ApJ*, vol. 881, p 84, 2019 9 citations
42. 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 9 citations
43. Kral, Q., Matr, L., Kennedy, G. M., **Marino, S.**, & Wyatt, M. C., “*Survey of planetesimal belts with ALMA: gas detected around the Sun-like star HD 129590*”, *MNRAS*, vol. 497, p 2811, 2020 5 citations
44. Casassus, S., Pérez, S., Osses, A., & **Marino, S.**, “*Cooling in the shade of warped transition discs*”, *MNRAS*, vol. 486, p L58, 2019 5 citations
45. Matrà, L., Dent, W. R. F., Wilner, D. J., **Marino, S.**, Wyatt, M. C., Marshall, J. P., Su, K. Y. L., Chavez, M., Hales, A., Hughes, A. M., Greaves, J. S., & Corder, S. A., “*Dust Populations in the Iconic Vega Planetary System Resolved by ALMA*”, *ApJ*, vol. 898, p 146, 2020 5 citations
46. Nederlander, A., Hughes, A. M., Fehr, A. J., Flaherty, K. M., Su, K. Y. L., Moor, A., Chiang, E., Andrews, S. M., Wilner, D. J., & **Marino, S.**, “*Resolving Structure in the Debris Disk around HD 206893 with ALMA*”, *ApJ*, in press, 2021 5 citations
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MNRAS=Monthly Notices of the Royal Astronomical Society; MNRASL=Monthly Notices of the Royal Astronomical Society Letters; ApJ=The Astrophysical Journal; ApJL=The Astrophysical Journal Letters; A&A=Astronomy & Astrophysics; AJ=The Astronomical Journal.

### Non-refereed publications

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- **Marino, S.**, “*Debris/Planetesimal discs*”, chapter of book “*Planetary Systems Now*” to be published by World Scientific. This book is based on the advanced school ‘Planets, exoplanets and their systems in a broad and multidisciplinary context’ in 2021. Download submitted chapter.
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