PUBLICATION LIST

MAJOR REFEREED PUBLICATIONS

- 1. Laginja, I.; Baudoz, P.; **Mazoyer, J.** et al. (2025), Extended Linearity in the High-Order Wavefront Sensor for the Roman Coronagraph, submitted to A&A
- 2. Squicciarini, V.; Mazoyer, J.; Lagrange, A.-M. et al. (2025), The COBREX archival survey: Improved constraints on the occurrence rate of wide-orbit substellar companions: I. A uniform reanalysis of 400 stars from the GPIES survey, Astronomy and Astrophysics, 693, A54, DOI link, arXiv link, 1 citation
- 3. Gutierrez, Y.; Mazoyer, J.; Mugnier, L. M. et al. (2024), Image-based wavefront correction using model-free reinforcement learning, Optics Express, 32, 31247, DOI link, arXiv link
- 4. Galicher, R.; Potier, A.; Mazoyer, J. et al. (2024), Increasing the raw contrast of VLT/SPHERE with the dark hole technique. III. Broadband reference differential imaging of HR4796 using a four-quadrant phase mask, Astronomy and Astrophysics, 686, A54, DOI link, arXiv link, 1 citation
- 5. Galicher, R. & Mazoyer, J. (2024), Imaging exoplanets with coronagraphic instruments, Comptes Rendus Physique, 24, 133, DOI link, arXiv link, 14 citations
- Stasevic, S.; Milli, J.; Mazoyer, J. et al. (2023), An inner warp discovered in the disk around HD 110058 using VLT/SPHERE and HST/STIS, Astronomy and Astrophysics, 678, A8, DOI link, arXiv link, 5 citations
- 7. Potier, A.; Mazoyer, J.; Wahhaj, Z. et al. (2022), Increasing the raw contrast of VLT/SPHERE with the dark hole technique. II. On-sky wavefront correction and coherent differential imaging, Astronomy and Astrophysics, 665, A136, DOI link, arXiv link, 16 citations
- 8. Chen, C.; Mazoyer, J.; Poteet, C. A. et al. (2020), Multiband GPI Imaging of the HR 4796A Debris Disk, The Astrophysical Journal, 898, 55, DOI link, arXiv link, 36 citations
- 9. Mazoyer, J.; Pueyo, L.; N'Diaye, M. et al. (2018), Active Correction of Aperture Discontinuities-Optimized Stroke Minimization. II. Optimization for Future Missions, The Astronomical Journal, 155, 8, DOI link, arXiv link, 22 citations
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- 11. Fogarty, K.; Pueyo, L.; **Mazoyer, J.** et al. (2017), Polynomial Apodizers for Centrally Obscured Vortex Coronagraphs, The Astronomical Journal, 154, 240, DOI link, arXiv link, 10 citations
- 12. Mazoyer, J.; Pueyo, L.; Norman, C. et al. (2016), Active compensation of aperture discontinuities for WFIRST-AFTA: analytical and numerical comparison of propagation methods and preliminary results with a WFIRST-AFTA-like pupil, Journal of Astronomical Telescopes, Instruments, and Systems, 2, 011008, DOI link, arXiv link, 9 citations
- 13. Mazoyer, J.; Boccaletti, A.; Choquet, É. et al. (2016), A Symmetric Inner Cavity in the HD 141569A Circumstellar Disk, The Astrophysical Journal, 818, 150, DOI link, arXiv link, 13 citations
- 14. Mazoyer, J.; Boccaletti, A.; Augereau, J.-C. et al. (2014), Is the HD 15115 inner disk really asymmetrical?, Astronomy and Astrophysics, 569, A29, DOI link, arXiv link, 34 citations
- 15. Mazoyer, J.; Baudoz, P.; Galicher, R. et al. (2014), High-contrast imaging in polychromatic light with the self-coherent camera, Astronomy and Astrophysics, 564, L1, DOI link, arXiv link, 35 citations
- 16. Mazoyer, J.; Baudoz, P.; Galicher, R. et al. (2013), Estimation and correction of wavefront aberrations using the self-coherent camera: laboratory results, Astronomy and Astrophysics, 557, A9, DOI link, arXiv link, 37 citations

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- 1. Laginja, I.; Carrión-González, O.; Laugier, R. et al. (2025), Advancing European High-Contrast Imaging R&D Towards the Habitable Worlds Observatory, Accepted for publication in Astrophysics and Space Science, arXiv link
- 2. Chomez, A.; Delorme, P.; Lagrange, A.-M. et al. (2025), The SPHERE infrared survey for exoplanets (SHINE). V. Complete observations, data reduction and analysis, detection performances, and final results, Accepted for publication in A&A arXiv link
- 3. Wilkinson, C.; Charnay, B.; Mazevet, S. et al. (2024), Breaking degeneracies in exoplanetary parameters through self-consistent atmosphere–interior modelling, Astronomy and Astrophysics, 692, A113, DOI link, arXiv link
- 4. Lewis, B. L.; Fitzgerald, M. P.; Esposito, T. M. et al. (2024), Gemini Planet Imager Observations of a Resolved Low-inclination Debris Disk around HD 156623, The Astronomical Journal, 168, 142, DOI link, arXiv link
- 5. Goulas, C.; Galicher, R.; Vidal, F. et al. (2024), Numerical simulations for the SAXO+ upgrade: Performance analysis of the adaptive optics system, Astronomy and Astrophysics, 689, A199, DOI link, arXiv link, 2 citations
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- 7. Hom, J.; Patience, J.; Chen, C. H. et al. (2024), A uniform analysis of debris discs with the Gemini Planet Imager II: constraints on dust density distribution using empirically informed scattering phase functions, Monthly Notices of the Royal Astronomical Society, 528, 6959, DOI link, arXiv link, 4 citations
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- 10. Crotts, K. A.; Matthews, B. C.; Duchêne, G. et al. (2024), A Uniform Analysis of Debris Disks with the Gemini Planet Imager. I. An Empirical Search for Perturbations from Planetary Companions in Polarized Light Images, The Astrophysical Journal, 961, 245, DOI link, arXiv link, 6 citations
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- 13. Miles, B. E.; Biller, B. A.; Patapis, P. et al. (2023), The JWST Early-release Science Program for Direct Observations of Exoplanetary Systems II: A 1 to 20 μm Spectrum of the Planetary-mass Companion VHS 1256-1257 b, The Astrophysical Journal, 946, L6, DOI link, arXiv link, 105 citations
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- 20. Esposito, T. M.; Kalas, P.; Fitzgerald, M. P. et al. (2020), Debris Disk Results from the Gemini Planet Imager Exoplanet Survey's Polarimetric Imaging Campaign, The Astronomical Journal, 160, 24, DOI link, arXiv link, 89 citations
- 21. Duchêne, G.; Rice, M.; Hom, J. et al. (2020), The Gemini Planet Imager View of the HD 32297 Debris Disk, The Astronomical Journal, 159, 251, DOI link, arXiv link, 22 citations
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- 27. Stark, C. C.; Belikov, R.; Bolcar, M. R. et al. (2019), ExoEarth yield landscape for future direct imaging space telescopes, Journal of Astronomical Telescopes, Instruments, and Systems, 5, 024009, DOI link, arXiv link, 61 citations
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- 32. Jensen-Clem, R.; Mawet, D.; Gomez Gonzalez, C. A. et al. (2018), A New Standard for Assessing the Performance of High Contrast Imaging Systems, The Astronomical Journal, 155, 19, DOI link, arXiv link, 33 citations
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- 3. Fogarty, K.; Mawet, D.; **Mazoyer, J.** et al. (2020), Towards high throughput and low-order aberration robustness for vortex coronagraphs with central obstructions, Space Telescopes and Instrumentation 2020: Optical, Infrared, and Millimeter Wave, 11443, 114433Y, DOI link, 1 citation
- 4. Mazoyer, J.; Arriaga, P.; Hom, J. et al. (2020), DiskFM: A forward modeling tool for disk analysis with coronagraphic instruments, Ground-based and Airborne Instrumentation for Astronomy VIII, 11447, 1144759, DOI link, arXiv link, 7 citations
- 5. Fogarty, K.; Mazoyer, J.; St. Laurent, K. et al. (2018), Optimal deformable mirror and pupil apodization combinations for apodized pupil Lyot coronagraphs with obstructed pupils, Space Telescopes and Instrumentation 2018: Optical, Infrared, and Millimeter Wave, 10698, 106981J, DOI link, 2 citations
- 6. Ruane, G.; Riggs, A.; Mazoyer, J. et al. (2018), Review of high-contrast imaging systems for current and future ground- and space-based telescopes I: coronagraph design methods and optical performance metrics, Space Telescopes and Instrumentation 2018: Optical, Infrared, and Millimeter Wave, 10698, 106982S, DOI link, arXiv link, 14 citations
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