LISTE DE PUBLICATIONS

PRINCIPAUX ARTICLES

- 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 re-analysis 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
- 6. 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

- 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
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- 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
- 6. Petrus, S.; Whiteford, N.; Patapis, P. et al. (2024), The JWST Early Release Science Program for Direct Observations of Exoplanetary Systems. V. Do Self-consistent Atmospheric Models Represent JWST Spectra? A Showcase with VHS 1256–1257 b, The Astrophysical Journal, 966, L11, DOI link, arXiv link, 17 citations
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- 16. Betti, S. K.; Follette, K.; Jorquera, S. et al. (2022), Detection of Near-infrared Water Ice at the Surface of the (Pre)Transitional Disk of AB Aur: Informing Icy Grain Abundance, Composition, and Size, The Astronomical Journal, 163, 145, DOI link, arXiv link, 14 citations
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- 19. Arriaga, P.; Fitzgerald, M. P.; Duchêne, G. et al. (2020), Multiband Polarimetric Imaging of HR 4796A with the Gemini Planet Imager, The Astronomical Journal, 160, 79, DOI link, arXiv link, 29 citations
- 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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- 36. Debes, J. H.; Ygouf, M.; Choquet, E. et al. (2016), Wide-Field Infrared Survey Telescope-Astrophysics Focused Telescope Assets coronagraphic operations: lessons learned from the Hubble Space Telescope and the James Webb Space Telescope, Journal of Astronomical Telescopes, Instruments, and Systems, 2, 011010, DOI link, arXiv link, 11 citations
- 37. Wiens, R. C.; Maurice, S.; Lasue, J. et al. (2013), Pre-flight calibration and initial data processing for the ChemCam laser-induced breakdown spectroscopy instrument on the Mars Science Laboratory rover, Spectrochimica Acta Part B: Atomic Spectroscopy, 82, 1, DOI link, 157 citations
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- 2. Mazoyer, J.; Goulas, C.; Vidal, F. et al. (2024), Upgrading SPHERE with the second stage AO system SAXO+: non-common path aberrations estimation and correction, Ground-based and Airborne Instrumentation for Astronomy X, 13096, 130969D, DOI link
- 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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- 2. Goulas, C.; Galicher, R.; Vidal, F. et al. (2024), Upgrading SPHERE with the second stage AO system SAXO+: exploration of the parameter space with end-to-end numerical simulations, Adaptive Optics Systems IX, 13097, 1309769, DOI link
- 3. Cantalloube, F.; Christiaens, V.; Cantero, C. et al. (2024), Exoplanet imaging data challenge, phase II: comparison of algorithms in terms of characterization capabilities, Adaptive Optics Systems IX, 13097, 1309713, DOI link, arXiv link
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- 5. Savransky, D.; Bailey, V. P.; Wolff, S. G. et al. (2024), *The Nancy Grace Roman Space Telescope coronagraph community participation program*, Space Telescopes and Instrumentation 2024: Optical, Infrared, and Millimeter Wave, 13092, 130921I, DOI link
- 6. Millar-Blanchaer, M. A.; Wang, J.; Bogat, E. et al. (2024), The Roman coronagraph community participation program: data reduction and simulations, Space Telescopes and Instrumentation 2024: Optical, Infrared, and Millimeter Wave, 13092, 1309256, DOI link
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