

Publication list

(*Electronic links available in blue*)

Resume:

Total number of referred publications

121 articles.

Articles as 1^{er} author

20 articles.

27011 Citations (ADS, 9 Septembre 2024)

H index 47.

Conference proceedings

85 articles.

Color legend for different topics:

Stars ● - 65 articles, planets ● - 13 articles, instrumental ● - 2 articles, large collaborations ● - 41 articles.

Referred publications

2024

1. **A. Chiavassa**, K. Kravchenko, J. Goldberg ●
Signatures of convection in the atmospheres of cool evolved stars, *Living Reviews in Computational Astrophysics, Springer Nature*
2. J. Z. Ma, **A. Chiavassa**, S. E. de Mink, R. Valli, S. Justham, B. Freytag ●
Is Betelgeuse really rotating? Synthetic ALMA observations of large-scale convection in 3D simulations of Red Supergiants, *ApJ*
3. E. Béguin, **A. Chiavassa**, A. Ahmad, B. Freytag, S. Uttenthaler ●
Retrieving stellar parameters and dynamics of AGB stars with Gaia parallax measurements and CO5BOLD RHD simulations, *Astronomy & Astrophysics*
4. D. Jادlovsky et al. ●
The Great Dimming of Betelgeuse: the photosphere as revealed by tomography during the past 15 years, *Astronomy & Astrophysics*
5. L. Planquart et al. ●
An impressionist view of V Hydrae. When MATISSE paints Asymmetric Giant Blobs, *Astronomy & Astrophysics*
6. A. Rosales-Guzman et al. et al. ●
A new dimension in the variability of AGB stars: convection patterns size changes with pulsation, *Astronomy & Astrophysics*
7. Gaia Collaboration ●

Discovery of a dormant 33 solar-mass black hole in pre-release Gaia astrometry Gaia, *Astronomy & Astrophysics*

2023

8. E. Pallé et al. ●
Ground-breaking Exoplanet Science with the ANDES spectrograph at the ELT, *Experimental Astronomy*, submitted
9. I. Roederer et al. ●
The discovery space of ELT-ANDES. Stars and stellar populations, *Experimental Astronomy*
10. J. Drevon et al. ●
Images of Betelgeuse with VLTI/MATISSE across the Great Dimming, *MNRAS*, 527, L88
11. B. Klein et al. ●
ATMOSPHERIX: I- An open source high resolution transmission spectroscopy pipeline for exoplanets atmospheres with SPIRou, *MNRAS*, 527, 544
12. F. Debras et al. ●
ATMOSPHERIX: II- Characterising exoplanet atmospheres through transmission spectroscopy with SPIRou, *MNRAS*, 527, 566
13. G. Roccetti et al. ●
Presence of liquid water during the evolution of exomoons orbiting ejected free-floating planets, *International Journal of Astrobiology*, 22, 4, 317-346
14. E. Cannon et al. ●
The dusty circumstellar environment of Betelgeuse during the Great Dimming as seen by VLTI/MATISSE, *Astronomy & Astrophysics*, 675, A46
15. Gaia Collaboration ●
Gaia Focused Product Release: Asteroid orbital solution. Properties and assessment, *Astronomy & Astrophysics*, 680, A37
16. Gaia Collaboration ●
Gaia Focused Product Release: Spatial distribution of two diffuse interstellar bands, *Astronomy & Astrophysics*, 680, A38
17. Gaia Collaboration ●
Gaia Focused Product Release: Radial velocity time series of long-period variables, *Astronomy & Astrophysics*, 680, A36
18. Gaia Collaboration ●
Gaia Focused Product Release: Sources from Service Interface Function image analysis. Half a million new sources in omega Centauri, *Astronomy & Astrophysics*, 680, A35
19. Gaia Collaboration ●
Gaia Focused Product Release: A catalogue of sources around quasars to search for strongly lensed quasars, *Astronomy & Astrophysics*, in press
20. Gaia Collaboration ●
Gaia Data Release 3. The extragalactic content, *Astronomy & Astrophysics*, 674, A41

21. Gaia Collaboration ●
Gaia Data Release 3. Exploring and mapping the diffuse interstellar band at 862 nm, *Astronomy & Astrophysics*, 674, A40
 22. Gaia Collaboration ●
Gaia Early Data Release 3. The celestial reference frame (Gaia-CRF3), *Astronomy & Astrophysics*, 667, A148
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23. M. C. Maimone, M. Brogi, **A. Chiavassa**, et al. ●
Detecting H₂O with CRIRES+: the case of WASP-20b, *Astronomy & Astrophysics*, 667, A106
 24. **A. Chiavassa**, R. Kudritzki, B. Davies, B. Freytag, S. E. de Mink ●
Probing red supergiant dynamics through photo-center displacements measured by Gaia, *Astronomy & Astrophysics*, 661, L1 (*Press Release*)
 25. A. Kozyreva, J. Klencki, A. V. Filippenko, P. Baklanov, A. Mironov, S. Justham, **A. Chiavassa** ●
The circumstellar material around the Type IIP SN 2021yja, *ApJ*, 934, L31
 26. Gaia Collaboration ●
Gaia Data Release 3: Summary of the content and survey , *Astronomy & Astrophysics*, 674, A1
 27. Gaia Collaboration ●
Gaia Data Release 3: Reflectance spectra of Solar System small bodies, *Astronomy & Astrophysics*, 674, A35
 28. Gaia Collaboration ●
Gaia Data Release 3: Apsis III – Non-stellar content and source classification, *Astronomy & Astrophysics*, 674, A31
 29. Gaia Collaboration ●
Gaia Data Release 3: Analysis of the Gaia BP/RP spectra using the General Stellar Parameterizer from Photometry, *Astronomy & Astrophysics*, 674, A27
 30. Gaia Collaboration ●
Gaia Data Release 3: Pulsations in main sequence OBAF-type stars, *Astronomy & Astrophysics*, 674, A36
 31. Gaia Collaboration ●
Gaia Data Release 3: Astrophysical parameters inference system (Apsis) I – methods and content overview, *Astronomy & Astrophysics*, 674, A26
 32. Gaia Collaboration ●
Gaia Data Release 3: Apsis II – Stellar Parameters, *Astronomy & Astrophysics*, 674, A28
 33. Gaia Collaboration ●
Gaia Data Release 3: A Golden Sample of Astrophysical Parameters, *Astronomy & Astrophysics*, 674, A39
 34. Gaia Collaboration ●
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35. Gaia Collaboration ●
Gaia Data Release 3: The extragalactic content, *Astronomy & Astrophysics*, 674, A41
36. Gaia Collaboration ●
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37. Gaia Collaboration ●
Gaia Data Release 3: Analysis of RVS spectra using the General Stellar Parametriser from spectroscopy Gaia Collaboration, *Astronomy & Astrophysics*, 674, A29
38. Gaia Collaboration ●
Gaia Data Release 3: Mapping the asymmetric disc of the Milky Way Gaia Collaboration, *Astronomy & Astrophysics*, 674, A29
39. Gaia Collaboration ●
Gaia Data Release 3: Chemical cartography of the Milky Way Gaia Collaboration, *Astronomy & Astrophysics*, 674, A38
40. Gaia Collaboration ●
Gaia Early Data Release 3: The celestial reference frame (Gaia-CRF3), *Astronomy & Astrophysics*, 667, A148

2021

41. **A. Chiavassa**, K. Kravchenko, M. Montargès et al. ●
The extended atmosphere and circumstellar environment of the cool evolved star VX Sagittarii as seen by MATISSE, *Astronomy & Astrophysics*, 658, A185
42. M. Montargès et al. ●
A dusty veil shading Betelgeuse during its Great Dimming, *Nature*, 594, 7863, 365 (*Press Release*)
43. P. J. Avila, T. Grassi, S. Bovino, **A. Chiavassa**, et al. ●
Presence of water on exomoons orbiting free-floating planets: a case study, *International Journal of Astrobiology*, 20, 300 (*Press Release*)
44. K. Kravchenko, A. Jorissen, S. Van Eck, T. Merle, **A. Chiavassa**, et al. ●
Atmosphere of Betelgeuse before and during the Great Dimming event revealed by tomography, *Astronomy & Astrophysics*, 650, L17
45. R. Norris et al. ●
Long Term Evolution of Surface Features on the Red Supergiant AZ Cyg, *Astrophysical Journal*, 919, 124
46. M. R. Gent et al. ●
The SAPP pipeline for the determination of stellar abundances and atmospheric parameters of stars in the core program of the PLATO mission, *Astrophysical Journal*, 658, A147
47. P.-M. Gori et al. ●
I3T: Intensity Interferometry Imaging Telescope, *MNRAS*, 505, 2328
48. V. Hocdé et al. ●
Mid-infrared circumstellar emission of the long-period Cepheid I Carinae resolved with VLTI/MATISSE,

49. E. Tognelli et al. ●
Theoretical predictions of surface light element abundances in protostellar and pre-Main Sequence phase, *Front. Astron. Space Sci.*, 8, 22
50. Gaia Collaboration ●
Gaia Early Data Release 3: The Galactic anticentre, *Astronomy & Astrophysics*, 649, 8

2020

51. **A. Chiavassa**, K. Kravchenko, F. Millour, et al. ●
Optical interferometry and Gaia measurement uncertainties reveal the physics of asymptotic giant branch stars, *Astronomy & Astrophysics*, 640, 23
52. J. B. Climent, M. Wittkowski, **A. Chiavassa** et al. ●
VLTI-PIONIER imaging of the red supergiant V602 Carinae, *Astronomy & Astrophysics*, 635, 160
53. K. Kravchenko, M. Wittkowski, A. Jorissen, **A. Chiavassa** et al. ●
Tomography of cool giant and supergiant star atmospheres III. Validation of the method on VLTI/AMBER, *Astronomy & Astrophysics*, 642, A235
54. V. Houdé et al. ●
Pulsating chromosphere of classical Cepheids. Calcium infrared triplet and H α profile variations, *Astronomy & Astrophysics*, 641, A74
55. Gaia Collaboration ●
Gaia Early Data Release 3: Structure and properties of the Magellanic Clouds, *Astronomy & Astrophysics*, 649, A7
56. Gaia Collaboration ●
Gaia Early Data Release 3: Summary of the contents and survey properties, *Astronomy & Astrophysics*, 649, A1 (*Press Release*)
57. Gaia Collaboration ●
Gaia Early Data Release 3: Acceleration of the solar system from Gaia astrometry, *Astronomy & Astrophysics*, 649, A9
58. Gaia Collaboration ●
Gaia Early Data Release 3: The Gaia Catalogue of Nearby Stars, *Astronomy & Astrophysics*, 649, A6

2019

59. **A. Chiavassa** and M. Brogi ●
Planet and star synergy at high spectral resolution. A rationale for the characterisation of exoplanet atmospheres. I. The Infrared, *Astronomy & Astrophysics*, 631, 100
60. K. Kravchenko, **A. Chiavassa**, S. Van Eck et al. ●
Tomography of cool giant and supergiant star atmospheres II. Signature of convection in the atmosphere of the red supergiant star μ Cep, *Astronomy & Astrophysics*, 632, 28

61. E. Flowers, M. Brogi, E. Rauscher, E. Kempton, **A. Chiavassa** ●
The High-Resolution Transmission Spectrum of HD 189733b Interpreted with Atmospheric Doppler Shifts from Three-Dimensional General Circulation Models, *Astrophysical Journal*, 157, 209
62. X. Haubois et al. ●
The inner dust shell of Betelgeuse detected by polarimetric aperture-masking interferometry, *Astronomy & Astrophysics*, 628, 101
63. Gaia Collaboration ●
Gaia Data Release 2: Variable stars in the colour-absolute magnitude diagram, *Astronomy & Astrophysics*, 623, 110

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64. **A. Chiavassa**, B. Freytag, M. Shultheis ●
Heading Gaia to measure atmospheric dynamics in AGB stars, *Astronomy & Astrophysics*, 617, L1 (*Press Release*)
65. **A. Chiavassa**, L. Casagrande, R. Collet et al. ●
The Stagger-grid: A grid of 3D stellar atmosphere models VII. Synthetic stellar spectra and broad-band photometry, *Astronomy & Astrophysics*, 611, A11
66. T. Zwitter, J. Kos, **A. Chiavassa**, et al. ●
The GALAH Survey: Accurate Radial Velocities and Library of Observed Stellar Template Spectra, *MNRAS*, 481, p.645.
67. M. Wittkowski, G. Rau, **A. Chiavassa**, et al. ●
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68. M. Montargès, R. Norris, **A. Chiavassa** et al. ●
The convective photosphere of the red supergiant CE Tau. I. VLTI/PIONIER H-band interferometric imaging, *Astronomy & Astrophysics*, 614, A12
69. M. Faurobert, M. Carbillet, L. Marquis, **A. Chiavassa**, and G. Ricort ●
Temperature gradient in the solar photosphere. Test of a new spectroscopic method and study of its feasibility for ground-based telescopes *Astronomy & Astrophysics*, 616, A133
70. C. Paladini et al. ●
Large granulation cells on the surface of the giant star π 1 Gruis, *Nature*, 7688, 310. (*Press Release*)
71. P. Mathias et al. ●
Evolution of the magnetic field of Betelgeuse from 2009 - 2017, *Astronomy & Astrophysics*, 615, A116
72. I. Karovicova et al. ●
Accurate effective temperatures of the metal-poor benchmark stars HD 140283, HD 122563 and HD 103095 from CHARA interferometry, *MNRAS*, 475, L81
73. N. Nardetto et al. ●
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74. F. Millour, D. Mourard, J. Woillez, P. Berio, **A. Chiavassa**, et al. ●
Perspectives of a visible instrument on the VLTI, *Experimental Astronomy*, Springer Link
75. Gaia Collaboration ●
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76. Gaia Collaboration ●
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77. Gaia Collaboration ●
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78. Gaia Collaboration ●
Gaia Data Release 2: The celestial reference frame (Gaia-CRF2) Gaia Collaboration, *Astronomy & Astrophysics*, 616, A14
79. Gaia Collaboration ●
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80. Gaia Collaboration ●
Gaia Data Release 2: Kinematics of globular clusters and dwarf galaxies around the Milky Way, *Astronomy & Astrophysics*, 637, C3

2017

81. **A. Chiavassa**, F. Selsis, A. Caldas et al. ●
Measuring stellar granulation during transiting planets, *Astronomy & Astrophysics*, Volume 597, id.A94.
82. **A. Chiavassa**, R. Norris, M. Montarges et al. ●
Asymmetries on red giant branch surfaces from CHARA/MIRC optical interferometry, *Astronomy & Astrophysics*, Volume 600, id.L2.
83. M. Montarges, **A. Chiavassa**, P. Kervella et al. ●
The convective surface of the red supergiant Antares. VLTI/PIONIER interferometry in the near infrared, *Astronomy & Astrophysics*, Volume 605, id.A108.
84. K. Kravchenko, S. Van Eck, **A. Chiavassa** et al. ●
Tomography of cool giant and supergiant star atmospheres. I. Validation of the method, *Astronomy & Astrophysics*, 610, A29.
85. M. Heida, P.G. Jonker, M.A.P. Torres, **A. Chiavassa** ●
The mass function of GX 339-4 from spectroscopic observations of its donor star, *Astrophysical Journal*, Volume 846, id.132.
86. M. Wittkowski, F. J. Abellan, B. Arroyo-Torres, **A. Chiavassa**, et al. ●
Multi-epoch VLTI-PIONIER imaging of the supergiant V766 Cen: Image of the close companion in front of the primary, *Astronomy & Astrophysics*, Volume 606, id.L1
87. Gaia Collaboration ●

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88. Gaia Collaboration ●

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89. M. Wittkowski, **A. Chiavassa**, B. Freytag et al. ●

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90. M. Wittkowski et al. ●

VLTI/AMBER spectro-interferometry of the late-type supergiants V766 Cen (=HR 5171 A), σ Oph, BM Sco, and HD 206859, *Astronomy & Astrophysics*, Volume 597, id.A9

91. M. Montargès, P. Kervella, G. Perrin, **A. Chiavassa**, et al. ●

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92. Kervella et al. ●

The close circumstellar environment of Betelgeuse - III. SPHERE/ZIMPOL visible polarimetry of the inner envelope and photospheres, *Astronomy & Astrophysics*, Volume 585, id.A28

93. M. Aurière et al. ●

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94. Gaia Collaboration ●

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95. Gaia Collaboration ●

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96. **A. Chiavassa**, C. Pere, M. Faurobert et al. ●

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97. Z. Magic, **A. Chiavassa**, R. Collet et al. ●

The Stagger-grid: A grid of 3D stellar atmosphere models - IV. Limb darkening coefficients, *Astronomy & Astrophysics*, Volume 573, id.A90

98. B. Arroyo-Torres, M. Wittkowski, **A. Chiavassa** et al. ●

What causes the large extensions of red-supergiant atmospheres? Comparisons of interferometric observations with 1-D hydrostatic, 3-D convection, and 1-D pulsating model atmospheres, *Astronomy & Astrophysics*, Volume 575, id.A50

99. P. Cruzalèbes, A. Jorissen, **A. Chiavassa** et al. ●

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100. O. Creevey et al. ●
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101. A. Chiavassa, R. Ligi, Z. Magic et al. ●
Planet transit and stellar granulation detection with interferometry, *Astronomy & Astrophysics*, Volume 567, A115
102. M. Montargès et al. ●
Properties of the CO and H₂O MOLsphere of the red supergiant Betelgeuse from VLTI/AMBER observations, *Astronomy & Astrophysics*, Volume 572, A17
103. P. Cruzalèbes et al. ●
Measuring deviation from centrosymmetry for a source brightness distribution observed by spectro-interferometry, *MNRAS*, Volume 443, 3550
104. R. Ligi et al. ●
Transiting exoplanets and magnetic spots characterized with optical interferometry, *Astronomy & Astrophysics*, Volume 574, A69
105. P. Kervella et al. ●
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The Stagger-grid: A Grid of 3D Stellar Atmosphere Models - I. Methods and General Properties, *Astronomy & Astrophysics*, Volume 557, A26
107. P. Cruzalèbes et al. ●
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108. P. Cruzalèbes et al. ●
SPIDAST: a new modular software to process spectro-interferometric measurements, *MNRAS*, Volume 432, p. 1658
109. B. Davies et al. ●
The temperatures of red supergiants, *Astrophysical Journal*, Volume 767, id.3

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110. A. Chiavassa, L. Bigot, P. Kervella et al. ●
Three-dimensional interferometric, spectrometric, and planetary views of Procyon, *Astronomy & Astrophysics*, Volume 540, A5

111. O. L. Creevey et al. ●
Fundamental properties of the Population II fiducial stars HD 122563 and Gmb 1830 from CHARA interferometric observations, *Astronomy & Astrophysics*, Volume 545, A17
112. J.-P. Berger, F. Malbet, F. Baron, **A. Chiavassa** et al. ●
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113. **A. Chiavassa**, B. Freytag, T. Masseron, B. Plez ●
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114. **A. Chiavassa**, E. Pasquato, A. Jorissen et al. ●
Radiative hydrodynamics simulations of red supergiant stars. III. Spectro-photocentric variability, photometric variability, and consequences on Gaia measurements, *Astronomy & Astrophysics*, Volume 528, A120
115. **A. Chiavassa**, L. Bigot, F. Thévenin et al. ●
3D hydrodynamical model atmospheres: a tool to correct radial velocities and parallaxes for Gaia, *Journal of Physics: Conference Series*, Volume 328, id.012012
116. P. Kervella, G. Perrin, **A. Chiavassa** et al. ●
The close circumstellar environment of Betelgeuse - II. Diffraction-limited spectro-imaging from 7.76 to 19.50 μm with VLT/VISIR, *Astronomy & Astrophysics*, Volume 531, A117 (*Press Release*)

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117. **A. Chiavassa**, R. Collet, L. Casagrande, and M. Asplund ●
Three-dimensional hydrodynamical simulations of red giant stars: semi-global models for the interpretation of interferometric observations, *Astronomy & Astrophysics*, Volume 524, id.A93
118. **A. Chiavassa**, X. Haubois, J. S. Young et al. ●
Radiative hydrodynamics simulations of red supergiant stars: II. simulations of convection on Betelgeuse match interferometric observations, *Astronomy & Astrophysics*, Volume 515, id.A12 (*Press Release*)
119. **A. Chiavassa**, S. Lacour, F. Millour, et al. ●
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