

Publications in peer-reviewed journals

1. **From the stellar properties of HD 219134 to the internal compositions of its transiting exoplanets.**
R. Ligi, C. Dorn, A. Crida *et al.* A&A, subm. to A&A.
2. **Determining mass limits around HD 163296 through SPHERE direct imaging data**
D. Mesa, M. Langlois, A. Garufi, [...], **R. Ligi**, *et al.* 2019, MNRAS, 488, 37M
DOI : 10.1093/mnras/stz1662
3. **Constraining the properties of HD 206893 B. A combination of radial velocity, direct imaging, and astrometry data**
A. Grandjean, A.-M. Lagrange, H. Beust, [...], **R. Ligi**, *et al.* 2019, subm. to A&A
2019arXiv190602058G
4. **Exploring the R CrA environment with SPHERE : Discovery of a new stellar companion**
D. Mesa, M. Bonnefoy, R. Gratton, [...], **R. Ligi**, *et al.* 2019, A&A, 624, 4M
DOI : 10.1051/0004-6361/201834682
5. **Blobs, spiral arms, and a possible planet around HD 169142**
R. Gratton, **R. Ligi**, E. Sissa *et al.* 2019, A&A, 623, 140G
DOI : 10.1051/0004-6361/201834760
6. **Post conjunction detection of β Pictoris b with VLT/SPHERE**
A.-M. Lagrange, A. Boccaletti, M. Langlois, [...], **R. Ligi**, *et al.* 2019, A&A, 621, 8L
DOI : 10.1051/0004-6361/201834302
7. **K2-265 b : a transiting rocky super-Earth**
K. Lam, A. Santerne, S.G Sousa, [...], **R. Ligi**, *et al.* 2018, A&A, 620, 77L
DOI : 10.1051/0004-6361/201834073
8. **High-contrast study of the candidate planets and protoplanetary disk around HD 100546**
E. Sissa, R. Gratton, A. Garufi, [...], **R. Ligi**, *et al.* 2018, A&A, 619, 160S
DOI : 10.1051/0004-6361/201732332
9. **K2 Targets Observed with SPHERE/VLT : An M4-7 Dwarf Companion Resolved around EPIC 206011496**
R. Ligi, O. Demangeon, S. Barros, *et al.* 2018, AJ, 156, 182L
DOI : 10.3847/1538-3881/aadc69
10. **The GJ 504 system revisited. Combining interferometric, radial velocity, and high contrast imaging data**
M. Bonnefoy, K. Perraut, A.-M. Lagrange, [...], **R. Ligi**, *et al.* 2018, A&A, 618A, 63B
DOI : 10.1051/0004-6361/201832942
11. **Dynamical masses of M-dwarf binaries in young moving groups.**
I. The case of TWA 22 and GJ 2060
L. Rodet, M. Bonnefoy, S. Durkan, [...], **R. Ligi**, *et al.* 2018, A&A, 618, 23R
DOI : 10.1051/0004-6361/201832924
12. **Mass, Radius, and Composition of the Transiting Planet 55 Cnc e : Using Interferometry and Correlations – A Quick Update**
A. Crida, **R. Ligi**, C. Dorn, F. Borsa & Y. Lebreton 2018, RNAAS, 2, 172
DOI : 10.3847/2515-5172/aae1f6

13. **Orbital and atmospheric characterization of the planet within the gap of the PDS 70 transition disk**
A. Müller, M. Keppler, Th. Henning, [...], [R. Ligi](#), *et al.* 2018, A&A, 617, 2L
DOI : 10.1051/0004-6361/201833584
14. **Resolving faint structures in the debris disk around TWA 7. Tentative detections of an outer belt, a spiral arm, and a dusty cloud**
J. Olofsson, R. G. van Holstein, A. Boccaletti, [...], [R. Ligi](#), *et al.* 2018, A&A, 617, 109O
DOI : 10.1051/0004-6361/201832583
15. **Discovery of a brown dwarf companion to the star HIP 64892**
A. Cheetham, M. Bonnefoy, S. Desidera, [...], [R. Ligi](#), *et al.* 2018, A&A, 615, 160C
DOI : 10.1051/0004-6361/201832650
16. **VLT/SPHERE astrometric confirmation and orbital analysis of the brown dwarf companion HR 2562 B**
A.-L. Maire, L. Rodet, C. Lazzoni, [...], [R. Ligi](#), *et al.* 2018, A&A, 615, 177M
DOI : 10.1051/0004-6361/201732476
17. **Mass, Radius, and Composition of the Transiting Planet 55 Cnc e : Using Interferometry and Correlations**
A. Crida, [R. Ligi](#), C. Dorn & Y. Lebreton 2018, ApJ, 860, 122
DOI : 10.3847/1538-4357/aabfe4
18. **First scattered light detection of a nearly edge on circumstellar disk around the T Tauri star RY Lup**
M. Langlois, A. Pohl, A.-M. Lagrange, [...], [R. Ligi](#), *et al.* 2018, A&A, 614, 88L
DOI : 10.1051/0004-6361/201731624
19. **An Earth-sized exoplanet with a Mercury-like composition**
A. Santerne, B. Brugger, D. J. Armstrong, [...], [R. Ligi](#), *et al.* 2018, Nature Astronomy, 2, 393S
DOI : 10.1038/s41550-018-0420-5
20. **Dynamical models to explain observations with SPHERE in planetary systems with double debris belts**
C. Lazzoni, S. Desidera, F. Marzari, [...], [R. Ligi](#), *et al.* 2018, A&A, 611, 43L
DOI : 10.1051/0004-6361/201731426
21. **Investigation of the inner structures around HD 169142 with VLT/SPHERE**
[R. Ligi](#), A. Vigan, R. Gratton, *et al.* 2018, MNRAS, 473, 1774L
DOI : 10.1093/mnras/stx2318
22. **Orbiting a binary. SPHERE characterisation of the HD 284149 system**
M. Bonavita, V. D’Orazi, D. Mesa, [...], [R. Ligi](#), *et al.* 2017, A&A, 608A, 106B
DOI : 10.1051/0004-6361/201731003
23. **Precise masses for the transiting planetary system HD 106315 with HARPS**
S. C. C. Barros, H. Gosselin, J. Lillo-Box, [...], [R. Ligi](#), *et al.* 2017, A&A, 608A, 25B
DOI : 10.1051/0004-6361/201731276
24. **The Circumstellar Disk HD 169142 : Gas, Dust, and Planets Acting in Concert ?**
A. Pohl, M. Benisty, P. Pinilla, [...], [R. Ligi](#), *et al.* 2017, ApJ, 850, 52P
DOI : 10.3847/1538-4357/aa94c2
25. **Discovery of a warm, dusty giant planet around HIP 65426**
G. Chauvin, S. Desidera, A.-M. Lagrange, [...], [R. Ligi](#), *et al.* 2017, A&A, 605L, 9C
DOI : 10.1051/0004-6361/201731152
26. **Flattening and surface-brightness of the fast-rotating star δ Persei with the visible VEGA/CHARA interferometer**

- M. Challouf, N. Nardetto, A. Domiciano da Souza, [...], **R. Ligi**, *et al.* 2017, A&A, 604A, 51C
DOI : 10.1051/0004-6361/201629934
27. **Asymmetries on red giant branch surfaces from CHARA/MIRC optical interferometry**
A. Chiavassa, R. Norris, M. Montargès, **R. Ligi**, *et al.* 2017, A&A, 600, 2C
DOI : 10.1051/0004-6361/201730438
28. **A disk wind in AB Aurigae traced with H α interferometry**
K. Perraut, C. Dougados, G.H.R.A. Lima, M. Benisty, D. Mourard, **R. Ligi**, *et al.* 2016, A&A, 596, A17.
DOI : 10.1051/0004-6361/201628931
29. **Resolving the Planet-hosting Inner Regions of the LkCa 15 Disk**
C. Thalmann, M. Janson, A. Garufi, [...], **R. Ligi**, *et al.* 2016, ApJL, 828, L17
DOI : 10.3847/2041-8205/828/2/L17
30. **VEGA/CHARA interferometric observations of Cepheids. I A resolved structure around the proto-type classical Cepheid δ Cep in the visible spectral range**
N. Nardetto, A. Mérand, D. Mourard, [...], **R. Ligi**, *et al.* 2016, A&A, 593, A45.
DOI : 10.1051/0004-6361/201528005
31. **Radii, masses, and ages of 18 bright stars using interferometry and new estimations of exoplanetary parameters**
R. Ligi, O. Creevey, D. Mourard, *et al.* 2016, A&A, A586, A94
DOI : 10.1051/0004-6361/201527054
32. **Spectral and spatial imaging of the Be+sdO binary ϕ Persei**
D. Mourard, J. D. Monnier, A. Meilland, [...], **R. Ligi**, *et al.* 2015, A&A, 577, A51
DOI : 10.1051/0004-6361/201425141
33. **Transiting exoplanets and magnetic spots characterized with optical interferometry**
R. Ligi, D. Mourard, A.-M. Lagrange, K. Perraut & A. Chiavassa 2015, A&A, 574, A69
DOI : 10.1051/0004-6361/201424013
34. **Improving the surface brightness-color relation for early-type stars using optical interferometry**
M. Challouf, N. Nardetto, D. Mourard, [...], **R. Ligi**, *et al.* 2014, A&A, 570, A104
DOI : 10.1051/0004-6361/201423772
35. **Planet transit and stellar granulation detection with interferometry. Using the three-dimensional stellar atmosphere Stagger-grid simulations**
A. Chiavassa, **R. Ligi**, Z. Magic, *et al.* 2014, A&A, 567, A115
DOI : 10.1051/0004-6361/201323207
36. **The operation of VEGA/CHARA : from the scientific idea to the final products**
R. Ligi, D. Mourard, N. Nardetto & J.-M. Clausse 2013, Journal of Astronomical Instrumentation, 02, 1340003
DOI : 10.1142/S2251171713400035
37. **Spectrally resolved interferometric observations of α Cephei and physical modeling of fast rotating stars**
O. Delaa, J. Zorec, A. Domiciano de Souza, [...], **R. Ligi**, *et al.* 2013, A&A, 555, A100
DOI : 10.1051/0004-6361/201220689
38. **A new interferometric study of four exoplanet host stars : θ Cygni, 14 Andromedae, v Andromedae and 42 Draconis**
R. Ligi, D. Mourard, A.-M. Lagrange, *et al.* 2012, A&A, 545, A5
DOI : 10.1051/0004-6361/201219467

39. **A high angular and spectral resolution view into the hidden companion of ϵ Aurigae**
D. Mourard, P. Harmanec, R. Stencel, [...], **R. Ligi**, *et al.* 2012, A&A, 544, A91
DOI : 10.1051/0004-6361/201219218
40. **Chromosphere of K giant stars. Geometrical extent and spatial structure detection**
Ph. B erio, T. Merle, F. Th evenin, [...], **R. Ligi**, *et al.* 2011, A&A, 535, A59
DOI : 10.1051/0004-6361/201117479
41. **The diameter of the CoRoT target HD 49933. Combining the 3D limb darkening, asteroseismology, and interferometry**
L. Bigot, D. Mourard, Ph. B erio, F. Th evenin, **R. Ligi**, *et al.* 2011, A&A, 534, L3
DOI : 10.1051/0004-6361/201117349
42. **Spatio-spectral encoding of fringes in optical long-baseline interferometry. Example of the 3T and 4T recombining mode of VEGA/CHARA**
D. Mourard, Ph. B erio, K. Perraut, **R. Ligi**, *et al.* 2011, A&A, 531, A110
DOI : 10.1051/0004-6361/201116976

Book chapter

1. **Interferometric diagnostics for magnetic spots detection**
R. Ligi 2014, contribution to the VLTI School book (Sept. 2013), EAS Publication Series :
What the highest angular resolution can bring to stellar astrophysics ?, 69, 273-283
DOI : 10.1051/eas/1569015

Proceedings

1. **Mass, Radius, and Composition of the Transiting Planet 55 Cnc e : Using Interferometry and Correlations**
A. Crida, **R. Ligi**, C. Dorn & Y. Lebreton, in SF2A-2018 : Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics, P. Di Matteo, F. Billebaud, F. Herpin, N. Lagarde, J.-B. Marquette, A. Robin, O. Venot (eds), 485-488.
2. **The characterisation of exoplanetary systems with high angular resolution**
R. Ligi, in SF2A-2018 : Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics, P. Di Matteo, F. Billebaud, F. Herpin, N. Lagarde, J.-B. Marquette, A. Robin, O. Venot (eds), 479-483.
3. **The system of HD169142 seen by SPHERE/VLT**
R. Ligi, A. Vigan, R. Gratton, *et al.* 2017, in SF2A-2017 : Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics, Eds. C. Reyl e, P. Di Matteo, F. Herpin,  . Lagarde, A. Lancon F. Royer (eds), 337-341.
4. **Mass and radius of a transiting exoplanet : a Bayesian approach, with application to 55 Cnc e**
A. Crida & **R. Ligi**, in European Planetary Science Congress 2017, held 17-22 September, 2017 in Riga Latvia, id. EPSC2017-546.
5. **Disentangling stellar activity from exoplanetary signals with interferometry**
R. Ligi, D. Mourard, A.-M. Lagrange, K. Perraut & A. Chiavassa 2015, European Physical Journal Web of Conferences, 101, 05004
DOI : 10.1051/epjconf/201510105004
6. **Review and latest news from the VEGA/CHARA facility**
N. Nardetto, D. Mourard, K. Perraut, I. Tallon-Bosc, A. Meilland, P. Stee, **R. Ligi** *et al.* in SF2A-

- 2014 : Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics, Eds. J. Ballet, F. Martins, F. Bournaud, R. Monier & C. Reyl , 501-504
7. **Impact of stellar activity on the determination of fundamental parameters with interferometry**
R. Ligi, D. Mourard, A.-M. Lagrange, K. Perraut & A. Chiavassa, in SF2A-2014 : Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics, Eds. J. Ballet, F. Martins, F. Bournaud, R. Monier & C. Reyl , 245-249
 8. **Modeling transiting exoplanets and spots for interferometric studies**
R. Ligi, D. Mourard, K. Perraut, *et al.* 2013, in IAU Symposium, Vol. 302, 202–205
 DOI : 10.1017/S1743921314002087
 9. **Programs and perspectives of visible long baseline interferometry VEGA/CHARA**
 D. Mourard, N. Nardetto, **R. Ligi** & K. Perraut 2013, in Advances in Solid State Physics, Vol. 31, Advances in Solid State Physics, ed. J. C. Su rez, R. Garrido, L. A. Balona, & J. Christensen-Dalsgaard, 155
 DOI : 10.1007/978-3-642-29630-7_30
 10. **Interferometric determination of exoplanet host stars’ fundamental parameters : θ Cygni, 14 Andromedae, ν Andromedae and 42 Draconis**
R. Ligi, D. Mourard, A.-M. Lagrange & K. Perraut, in SF2A-2012 : Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics, Eds. S. Boissier, P. de Laverny, N. Nardetto, R. Samadi, D. Valls-Gabaud, & H. Wozniak, 199–205
 11. **Performances, results, and prospects of the visible spectrograph VEGA on CHARA**
 D. Mourard, M. Challouf, **R. Ligi**, *et al.* 2012, in Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, Vol. 8445
 DOI : 10.1117/12.925223
 12. **Study of exoplanets host stars with VEGA/CHARA**
R. Ligi, D. Mourard, A.-M. Lagrange, K. Perraut & I. Tallon-Bosc, 2012, in Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, Vol. 8445
 DOI : 10.1117/12.925503
 13. **Direct characterization of limb-darkening dedicated to transit measurements and asteroseismology**
R. Ligi & D. Mourard 2011, in Proceeding of the 2nd CoRoT Symposium

Catalogues

1. VizieR Online Data Catalog : HD 169142 images (Gratton+ 2019)
2. VizieR Online Data Catalog : R CrA SPHERE and SINFONI images (Mesa+ 2019)
3. VizieR Online Data Catalog : HD 284149 SPHERE/IFS spectrum (Bonavita+ 2017)
4. VizieR Online Data Catalog : NIR spectrum of exoplanet HIP 65426b (Chauvin+, 2017)
5. VizieR Online Data Catalog : Exoplanetary parameters for 18 bright stars (**Ligi**+, 2016)
6. VizieR Online Data Catalog : delta Cep VEGA/CHARA observing log (Nardetto+, 2016)
7. VizieR Online Data Catalog : epsilon Aur visibility measurements (Mourard+, 2012)

Other

1. **Science cases for a visible interferometer**
 Ph. Stee, F. Allard, M. Benisty, [...], **R. Ligi**, *et al.* 2017
 2017arXiv170302395S