

# Michel Rieutord

## List of Publications by Year in descending order

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111  
papers

3,463  
citations

126907

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122  
docs citations

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times ranked

1812  
citing authors

#	ARTICLE	IF	CITATIONS
1	Predictions for Gravity-mode Periods and Surface Abundances in Intermediate-mass Dwarfs from Shear Mixing and Radiative Levitation. <i>Astrophysical Journal</i> , 2022, 925, 154.	4.5	11
2	Internal shear layers in librating spherical shells: the case of periodic characteristic paths. <i>Journal of Fluid Mechanics</i> , 2022, 939, .	3.4	7
3	Oscillations of 2D ESTER models. <i>Astronomy and Astrophysics</i> , 2021, 645, A46.	5.1	14
4	Seismology of Altair with MOST. <i>Astronomy and Astrophysics</i> , 2021, 653, A26.	5.1	5
5	Stress-driven spin-down of a viscous fluid within a spherical shell. <i>Journal of Fluid Mechanics</i> , 2020, 904, .	3.4	2
6	A realistic two-dimensional model of Altair. <i>Astronomy and Astrophysics</i> , 2020, 633, A78.	5.1	25
7	The first view of $\hat{\text{A}}\hat{\text{S}}\hat{\text{c}}\hat{\text{u}}\hat{\text{t}}\hat{\text{i}}$ and $\hat{\text{B}}\hat{\text{D}}\hat{\text{r}}\hat{\text{a}}\hat{\text{d}}\hat{\text{u}}\hat{\text{s}}$ stars with the TESS mission. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 490, 4040-4059.	4.4	78
8	Classical and general relativistic post-Keplerian effects in binary pulsars hosting fast rotating main sequence stars. <i>European Physical Journal C</i> , 2019, 79, 1.	3.9	0
9	Core overshooting under the light of fluid dynamics. <i>EAS Publications Series</i> , 2019, 82, 153-165.	0.3	0
10	Critical angular velocity and anisotropic mass loss of rotating stars with radiation-driven winds. <i>Astronomy and Astrophysics</i> , 2019, 625, A88.	5.1	23
11	Evolution of rotation in rapidly rotating early-type stars during the main sequence with 2D models. <i>Astronomy and Astrophysics</i> , 2019, 625, A89.	5.1	20
12	Do tidally-generated inertial waves heat the subsurface oceans of Europa and Enceladus?. <i>Icarus</i> , 2019, 321, 126-140.	2.5	31
13	Axisymmetric inertial modes in a spherical shell at low Ekman numbers. <i>Journal of Fluid Mechanics</i> , 2018, 844, 597-634.	3.4	28
14	The 2D dynamics of radiative zones of low-mass stars. <i>Astronomy and Astrophysics</i> , 2018, 610, A35.	5.1	3
15	The evolved fast rotator Sargas. <i>Astronomy and Astrophysics</i> , 2018, 619, A167.	5.1	7
16	The Sun's supergranulation. <i>Living Reviews in Solar Physics</i> , 2018, 15, 1.	22.0	76
17	Gravity darkening in late-type stars. <i>Astronomy and Astrophysics</i> , 2018, 609, A124.	5.1	5
18	Supergranulation and multiscale flows in the solar photosphere. <i>Astronomy and Astrophysics</i> , 2017, 599, A69.	5.1	26

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19	Completeness of inertial modes of an incompressible inviscid fluid in a corotating ellipsoid. <i>Physical Review E</i> , 2017, 95, 053116.	2.1	20
20	2D dynamics of the radiative core of low mass stars. <i>EPJ Web of Conferences</i> , 2017, 160, 02006.	0.3	0
21	Non-adiabatic pulsations in ESTER models. <i>EPJ Web of Conferences</i> , 2017, 160, 02007.	0.3	5
22	On the oscillation spectrum of a magnetized core in a giant star. <i>EPJ Web of Conferences</i> , 2017, 160, 02011.	0.3	1
23	Gravity darkening in stars with surface differential rotation. <i>Astronomy and Astrophysics</i> , 2017, 606, A32.	5.1	12
24	Tidal inertial waves in differentially rotating convective envelopes of low-mass stars. <i>Astronomy and Astrophysics</i> , 2016, 589, A22.	5.1	32
25	Gravito-inertial waves in a differentially rotating spherical shell. <i>Journal of Fluid Mechanics</i> , 2016, 800, 213-247.	3.4	21
26	The 2D dynamics of the differentially rotating envelope of massive stars. <i>Proceedings of the International Astronomical Union</i> , 2016, 12, 409-409.	0.0	0
27	An algorithm for computing the 2D structure of fast rotating stars. <i>Journal of Computational Physics</i> , 2016, 318, 277-304.	3.8	55
28	Physical Processes Leading to Surface Inhomogeneities: The Case of Rotation. <i>Lecture Notes in Physics</i> , 2016, , 101-125.	0.7	5
29	Relation between trees of fragmenting granules and supergranulation evolution. <i>Astronomy and Astrophysics</i> , 2016, 590, A121.	5.1	22
30	Two-dimensional models of early-type fast rotating stars: the ESTER project. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, 147-148.	0.0	0
31	Gravito-inertial modes in a differentially rotating spherical shell. <i>EPJ Web of Conferences</i> , 2015, 101, 06046.	0.3	2
32	Flows of Incompressible Viscous Fluids. <i>Graduate Texts in Physics</i> , 2015, , 111-148.	0.2	1
33	Families of Granules, Flows, and Acoustic Events in the Solar Atmosphere from Hinode Observations. <i>Solar Physics</i> , 2015, 290, 321-333.	2.5	6
34	Beyond Fluid Mechanics: An Introduction to the Statistical Foundations of Gas Dynamics. <i>Graduate Texts in Physics</i> , 2015, , 407-452.	0.2	0
35	Flows of Perfect Fluids. <i>Graduate Texts in Physics</i> , 2015, , 71-109.	0.2	0
36	The environment of the fast rotating star Achernar. <i>Astronomy and Astrophysics</i> , 2014, 569, A10.	5.1	43

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37	Dynamics of the radiative envelope of rapidly rotating stars: Effects of spin-down driven by mass loss. <i>Astronomy and Astrophysics</i> , 2014, 570, A42.	5.1	10
38	Dynamics of the envelope of a rapidly rotating star or giant planet in gravitational contraction. <i>Astronomy and Astrophysics</i> , 2014, 572, A15.	5.1	11
39	Inertial waves in a differentially rotating spherical shell. <i>Journal of Fluid Mechanics</i> , 2013, 719, 47-81.	3.4	49
40	COMPARISON OF SOLAR SURFACE FLOWS INFERRED FROM TIME-DISTANCE HELIOSEISMOLOGY AND COHERENT STRUCTURE TRACKING USING HMI/SDO OBSERVATIONS. <i>Astrophysical Journal</i> , 2013, 771, 32.	4.5	20
41	Modeling rotating stars in two dimensions. <i>EAS Publications Series</i> , 2013, 62, 307-322.	0.3	2
42	Two-dimensional models of early-type fast rotating stars: new challenges in stellar physics. <i>EAS Publications Series</i> , 2013, 63, 385-394.	0.3	3
43	Pulsations of rapidly rotating stars with compositional discontinuities. <i>Proceedings of the International Astronomical Union</i> , 2013, 9, 169-172.	0.0	2
44	Asteroseismology of fast-rotating stars: the example of $\hat{\iota}_{\pm}$ Ophiuchi. <i>Proceedings of the International Astronomical Union</i> , 2013, 9, 455-456.	0.0	2
45	Self-consistent 2D models of fast-rotating early-type stars. <i>Astronomy and Astrophysics</i> , 2013, 552, A35.	5.1	87
46	Ab Initio Modelling of Steady Rotating Stars. <i>Lecture Notes in Physics</i> , 2013, , 49-73.	0.7	12
47	MHD simulations of the solar photosphere. <i>EAS Publications Series</i> , 2012, 55, 5-13.	0.3	1
48	Excitation of inertial modes in an experimental spherical Couette flow. <i>Physical Review E</i> , 2012, 86, 026304.	2.1	28
49	Acoustic Events in the Solar Atmosphere from Hinode/SOT NFI Observations. <i>Solar Physics</i> , 2012, 278, 241-256.	2.5	6
50	An r-mode in a magnetic rotating spherical layer: application to neutron stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 419, 2893-2899.	4.4	10
51	Gravity darkening in binary stars. <i>Astronomy and Astrophysics</i> , 2012, 547, A32.	5.1	31
52	Gravity darkening in rotating stars. <i>Astronomy and Astrophysics</i> , 2011, 533, A43.	5.1	186
53	The Sun's Supergranulation. <i>Living Reviews in Solar Physics</i> , 2010, 7, 1.	22.0	111
54	Viscous dissipation by tidally forced inertial modes in a rotating spherical shell. <i>Journal of Fluid Mechanics</i> , 2010, 643, 363-394.	3.4	69

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55	Gravity modes in rapidly rotating stars. <i>Astronomy and Astrophysics</i> , 2010, 518, A30.	5.1	61
56	ON THE INTERPRETATION OF ECHELLE DIAGRAMS FOR SOLAR-LIKE OSCILLATIONS EFFECT OF CENTRIFUGAL DISTORTION. <i>Astrophysical Journal</i> , 2010, 721, 537-546.	4.5	25
57	On the power spectrum of solar surface flows. <i>Astronomy and Astrophysics</i> , 2010, 512, A4.	5.1	54
58	Tidal instability in stellar and planetary binary systems. <i>Physics of the Earth and Planetary Interiors</i> , 2010, 178, 48-55.	1.9	57
59	Development of large and fast cmos aps cameras at latt. <i>EAS Publications Series</i> , 2009, 37, 301-306.	0.3	0
60	Mesoscale dynamics on the Sun's surface from HINODE observations. <i>Astronomy and Astrophysics</i> , 2009, 495, 945-952.	5.1	21
61	Approaching the Low-Frequency Spectrum of Rotating Stars. <i>Lecture Notes in Physics</i> , 2009, , 101-121.	0.7	6
62	The solar dynamo. <i>Comptes Rendus Physique</i> , 2008, 9, 757-765.	0.9	11
63	The dynamics of rotating fluids and binary stars. <i>EAS Publications Series</i> , 2008, 29, 127-147.	0.3	4
64	Regular patterns in the acoustic spectrum of rapidly rotating stars. <i>Astronomy and Astrophysics</i> , 2008, 481, 449-452.	5.1	65
65	Supergranules over the solar cycle. <i>Astronomy and Astrophysics</i> , 2008, 488, 1109-1115.	5.1	34
66	Solar supergranulation revealed by granule tracking. <i>Astronomy and Astrophysics</i> , 2008, 479, L17-L20.	5.1	41
67	Tracking granules on the Sun's surface and reconstructing velocity fields. <i>Astronomy and Astrophysics</i> , 2007, 471, 687-694.	5.1	31
68	Tracking granules on the Sun's surface and reconstructing velocity fields. <i>Astronomy and Astrophysics</i> , 2007, 471, 695-703.	5.1	9
69	Convergence and round-off errors in a two-dimensional eigenvalue problem using spectral methods and Arnoldi's Chebyshev algorithm. <i>Journal of Computational and Applied Mathematics</i> , 2007, 205, 382-393.	2.0	32
70	Velocities and divergences as a function of supergranule size. <i>Astronomy and Astrophysics</i> , 2007, 461, 1141-1147.	5.1	31
71	The dynamics of a fully radiative rapidly rotating star enclosed within a spherical box. <i>Astronomy and Astrophysics</i> , 2007, 470, 1013-1022.	5.1	61
72	The dynamics of the radiative envelope of rapidly rotating stars. <i>Astronomy and Astrophysics</i> , 2006, 451, 1025-1036.	5.1	57

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73	Acoustic oscillations of rapidly rotating polytropic stars. <i>Astronomy and Astrophysics</i> , 2006, 455, 621-637.	5.1	133
74	On the dynamics of radiative zones in rotating stars. <i>EAS Publications Series</i> , 2006, 21, 275-295.	0.3	17
75	A CMOS Sensor for Solar Observation. , 2006, , 123-128.		1
76	Acoustic oscillations of rapidly rotating polytropic stars. <i>Astronomy and Astrophysics</i> , 2006, 455, 607-620.	5.1	96
77	An introduction to thermal convection. <i>EAS Publications Series</i> , 2006, 21, 5-5.	0.3	0
78	Mesoscale flows in large aspect ratio simulations of turbulent compressible convection. <i>Astronomy and Astrophysics</i> , 2005, 430, L57-L60.	5.1	25
79	Evolution of Rotation in Binaries: Physical Processes. <i>Symposium - International Astronomical Union</i> , 2004, 215, 394-403.	0.1	5
80	Oscillations of Fast Rotating Stars: p-Modes in Centrifugally Flattened Polytropes. <i>Symposium - International Astronomical Union</i> , 2004, 215, 414-415.	0.1	1
81	The oscillations of rapidly rotating stars. , 2003, , 99-110.		0
82	Oscillations of magnetic stars: I. Axisymmetric shear Alfvén modes of a spherical shell in a dipolar magnetic field. <i>Astronomy and Astrophysics</i> , 2003, 398, 663-675.	5.1	17
83	Recurrence of fragmenting granules and their relation to meso- and supergranular flow fields. <i>EAS Publications Series</i> , 2003, 9, 371-371.	0.3	0
84	Adiabatic oscillations of non-rotating superfluid neutron stars. <i>Astronomy and Astrophysics</i> , 2002, 393, 949-963.	5.1	51
85	Analysis of singular inertial modes in a spherical shell: the slender toroidal shell model. <i>Journal of Fluid Mechanics</i> , 2002, 463, 345-360.	3.4	33
86	Slichter modes of the Earth revisited. <i>Physics of the Earth and Planetary Interiors</i> , 2002, 131, 269-278.	1.9	40
87	On the Theory of Oscillations of Rapidly Rotating Stars. <i>International Astronomical Union Colloquium</i> , 2002, 185, 190-191.	0.1	0
88	More concerning the anelastic and subseismic approximations for low-frequency modes in stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2002, 337, 1087-1090.	4.4	10
89	Photospheric flows measured with TRACE. <i>Astronomy and Astrophysics</i> , 2002, 387, 672-677.	5.1	16
90	Inertial waves in a rotating spherical shell: attractors and asymptotic spectrum. <i>Journal of Fluid Mechanics</i> , 2001, 435, 103-144.	3.4	151

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91	Ekman Layers and the Damping of Inertial Modes in a Spherical Shell: Application to Neutron Stars. <i>Astrophysical Journal</i> , 2001, 550, 443-447.	4.5	38
92	A comparison of the anelastic and subseismic approximations for low-frequency gravity modes in stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2001, 324, 635-642.	4.4	16
93	Are granules good tracers of solar surface velocity fields?. <i>Astronomy and Astrophysics</i> , 2001, 377, L14-L17.	5.1	54
94	Ekman Layers and the Damping of Inertial Modes in a Spherical Shell: Application to Neutron Stars. <i>Astrophysical Journal</i> , 2001, 557, 493-493.	4.5	7
95	Dynamo Effect With Inertial Modes in a Spherical Shell?. , 2001, , 271-277.		0
96	Oscillations of Rapidly Rotating Stars. <i>International Astronomical Union Colloquium</i> , 2000, 176, 373-373.	0.1	0
97	Wave Attractors in Rotating Fluids: A Paradigm for Ill-Posed Cauchy Problems. <i>Physical Review Letters</i> , 2000, 85, 4277-4280.	7.8	41
98	A note on inertial modes in the core of the Earth. <i>Physics of the Earth and Planetary Interiors</i> , 2000, 117, 63-70.	1.9	11
99	Gravito-inertial waves in a rotating stratified sphere or spherical shell. <i>Journal of Fluid Mechanics</i> , 1999, 398, 271-297.	3.4	94
100	On the analogy between gravity modes and inertial modes in spherical geometry. <i>European Physical Journal B</i> , 1999, 9, 731-738.	1.5	11
101	Inertial waves in a rotating spherical shell. <i>Journal of Fluid Mechanics</i> , 1997, 341, 77-99.	3.4	155
102	Ekman Pumping and Tidal Dissipation in Close Binaries: A Refutation of Tassoul's Mechanism. <i>Astrophysical Journal</i> , 1997, 474, 760-767.	4.5	35
103	Magnetic structures in a dynamo simulation. <i>Journal of Fluid Mechanics</i> , 1996, 306, 325-352.	3.4	203
104	Inertial modes in the liquid core of the Earth. <i>Physics of the Earth and Planetary Interiors</i> , 1995, 91, 41-46.	1.9	31
105	Non linear stability of slender accretion disks by bifurcation method. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1993, 70, 235-251.	1.2	1
106	Dynamo action in stratified convection with overshoot. <i>Astrophysical Journal</i> , 1992, 392, 647.	4.5	201
107	Linear theory of rotating fluids using spherical harmonics part II, time-periodic flows. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 1991, 59, 185-208.	1.2	51
108	Large Scale Convection in Stars : Towards a Model for the Action of Coherent Structures. <i>International Astronomical Union Colloquium</i> , 1991, 130, 33-36.	0.1	0

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109	$\hat{\alpha}$ -dynamos. International Astronomical Union Colloquium, 1991, 130, 147-150.	0.1	1
110	Tidal heating in close binary stellar systems. Monthly Notices of the Royal Astronomical Society, 1987, 227, 295-314.	4.4	5
111	Linear theory of rotating fluids using spherical harmonics part I: Steady flows. Geophysical and Astrophysical Fluid Dynamics, 1987, 39, 163-182.	1.2	42