

Maarit J Käpylä

List of Publications by Year in descending order

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117
papers

3,136
citations

136950

32
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182427

51
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all docs

117
docs citations

117
times ranked

1478
citing authors

#	ARTICLE	IF	CITATIONS
1	A Supernova-regulated Interstellar Medium: Simulations of the Turbulent Multiphase Medium. <i>Astrophysical Journal</i> , 1999, 514, L99-L102.	4.5	168
2	The Maunder minimum (1645–1715) was indeed a grand minimum: A reassessment of multiple datasets. <i>Astronomy and Astrophysics</i> , 2015, 581, A95.	5.1	158
3	CYCLIC MAGNETIC ACTIVITY DUE TO TURBULENT CONVECTION IN SPHERICAL WEDGE GEOMETRY. <i>Astrophysical Journal Letters</i> , 2012, 755, L22.	8.3	149
4	EFFECTS OF ENHANCED STRATIFICATION ON EQUATORWARD DYNAMO WAVE PROPAGATION. <i>Astrophysical Journal</i> , 2013, 778, 41.	4.5	106
5	Large-scale dynamos in turbulent convection with shear. <i>Astronomy and Astrophysics</i> , 2008, 491, 353-362.	5.1	96
6	The Pencil Code, a modular MPI code for partial differential equations and particles: multipurpose and multiuser-maintained. <i>Journal of Open Source Software</i> , 2021, 6, 2807.	4.6	92
7	The supernova-regulated ISM – I. The multiphase structure. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 432, 1396-1423.	4.4	86
8	A solar mean field dynamo benchmark. <i>Astronomy and Astrophysics</i> , 2008, 483, 949-960.	5.1	83
9	Magnetically controlled stellar differential rotation near the transition from solar to anti-solar profiles. <i>Astronomy and Astrophysics</i> , 2015, 576, A26.	5.1	82
10	Confirmation of bistable stellar differential rotation profiles. <i>Astronomy and Astrophysics</i> , 2014, 570, A43.	5.1	80
11	Alpha effect and turbulent diffusion from convection. <i>Astronomy and Astrophysics</i> , 2009, 500, 633-646.	5.1	75
12	Reynolds stress and heat flux in spherical shell convection. <i>Astronomy and Astrophysics</i> , 2011, 531, A162.	5.1	71
13	Convective dynamos in spherical wedge geometry. <i>Astronomische Nachrichten</i> , 2010, 331, 73-81.	1.2	70
14	The supernova-regulated ISM – II. The mean magnetic field. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2013, 430, L40-L44.	3.3	70
15	Multiple dynamo modes as a mechanism for long-term solar activity variations. <i>Astronomy and Astrophysics</i> , 2016, 589, A56.	5.1	68
16	Local models of stellar convection. <i>Astronomy and Astrophysics</i> , 2004, 422, 793-816.	5.1	59
17	Turbulent transport coefficients in spherical wedge dynamo simulations of solar-like stars. <i>Astronomy and Astrophysics</i> , 2018, 609, A51.	5.1	50
18	Magnetoconvection and dynamo coefficients. <i>Astronomy and Astrophysics</i> , 2006, 455, 401-412.	5.1	49

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19	Estimating activity cycles with probabilistic methods. <i>Astronomy and Astrophysics</i> , 2018, 619, A6.	5.1	49
20	Transition from axi- to nonaxisymmetric dynamo modes in spherical convection models of solar-like stars. <i>Astronomy and Astrophysics</i> , 2018, 616, A160.	5.1	48
21	ON THE CAUSE OF SOLAR-LIKE EQUATORWARD MIGRATION IN GLOBAL CONVECTIVE DYNAMO SIMULATIONS. <i>Astrophysical Journal Letters</i> , 2014, 796, L12.	8.3	46
22	STATISTICAL STUDY OF STRONG AND EXTREME GEOMAGNETIC DISTURBANCES AND SOLAR CYCLE CHARACTERISTICS. <i>Astrophysical Journal</i> , 2015, 806, 272.	4.5	46
23	LARGE-SCALE DYNAMOS IN RIGIDLY ROTATING TURBULENT CONVECTION. <i>Astrophysical Journal</i> , 2009, 697, 1153-1163.	4.5	45
24	Extended Subadiabatic Layer in Simulations of Overshooting Convection. <i>Astrophysical Journal Letters</i> , 2017, 845, L23.	8.3	44
25	Magnetorotational instability driven dynamos at low magnetic Prandtl numbers. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 413, 901-907.	4.4	43
26	Solar dynamo models with $\hat{\nu}$ -effect and turbulent pumping from local 3D convection calculations. <i>Astronomische Nachrichten</i> , 2006, 327, 884-894.	1.2	42
27	Magnetic field topology of the RS CVn star Π Pegasi. <i>Astronomy and Astrophysics</i> , 2013, 550, A84.	5.1	41
28	Convection-driven spherical shell dynamos at varying Prandtl numbers. <i>Astronomy and Astrophysics</i> , 2017, 599, A4.	5.1	39
29	STARSPOTS DUE TO LARGE-SCALE VORTICES IN ROTATING TURBULENT CONVECTION. <i>Astrophysical Journal</i> , 2011, 742, 34.	4.5	36
30	SPOKE-LIKE DIFFERENTIAL ROTATION IN A CONVECTIVE DYNAMO WITH A CORONAL ENVELOPE. <i>Astrophysical Journal</i> , 2013, 778, 141.	4.5	35
31	Negative effective magnetic pressure in turbulent convection. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 422, 2465-2473.	4.4	33
32	Flip-flops of FK Comae Berenices. <i>Astronomy and Astrophysics</i> , 2013, 553, A40.	5.1	33
33	QUENCHING AND ANISOTROPY OF HYDROMAGNETIC TURBULENT TRANSPORT. <i>Astrophysical Journal</i> , 2014, 795, 16.	4.5	30
34	Effects of stratification in spherical shell convection. <i>Astronomische Nachrichten</i> , 2011, 332, 883-890.	1.2	29
35	AN AZIMUTHAL DYNAMO WAVE IN SPHERICAL SHELL CONVECTION. <i>Astrophysical Journal Letters</i> , 2014, 780, L22.	8.3	27
36	Influence of a coronal envelope as a free boundary to global convective dynamo simulations. <i>Astronomy and Astrophysics</i> , 2016, 596, A115.	5.1	27

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37	Thermal Instability in Shearing and Periodic Turbulence. <i>Astrophysical Journal</i> , 2007, 654, 945-954.	4.5	23
38	Doppler images of II Pegasi for 2004–2010. <i>Astronomy and Astrophysics</i> , 2012, 538, A126.	5.1	23
39	Magnetic flux concentrations from turbulent stratified convection. <i>Astronomy and Astrophysics</i> , 2016, 588, A150.	5.1	23
40	Common dynamo scaling in slowly rotating young and evolved stars. <i>Nature Astronomy</i> , 2020, 4, 658-662.	10.1	23
41	The \pm effect in rotating convection with sinusoidal shear. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, 402, 1458-1466.	4.4	22
42	Effects of a subadiabatic layer on convection and dynamos in spherical wedge simulations. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2019, 113, 149-183.	1.2	21
43	Reynolds stresses from hydrodynamic turbulence with shear and rotation. <i>Astronomy and Astrophysics</i> , 2009, 505, 955-968.	5.1	21
44	Doppler images of the RS CVn binary II Pegasi during the years 1994–2002. <i>Astronomy and Astrophysics</i> , 2011, 526, A44.	5.1	21
45	Ejections of Magnetic Structures Above a Spherical Wedge Driven by a Convective Dynamo with Differential Rotation. <i>Solar Physics</i> , 2012, 280, 299-319.	2.5	20
46	Zeeman-Doppler imaging of active young solar-type stars. <i>Astronomy and Astrophysics</i> , 2016, 587, A28.	5.1	20
47	The supernova-regulated ISM. <i>Astronomy and Astrophysics</i> , 2018, 611, A15.	5.1	20
48	NEW SCALING FOR THE ALPHA EFFECT IN SLOWLY ROTATING TURBULENCE. <i>Astrophysical Journal</i> , 2013, 762, 127.	4.5	19
49	Stellar Dynamos in the Transition Regime: Multiple Dynamo Modes and Antisolar Differential Rotation. <i>Astrophysical Journal</i> , 2019, 886, 21.	4.5	19
50	Bihelical Spectrum of Solar Magnetic Helicity and Its Evolution. <i>Astrophysical Journal</i> , 2018, 863, 182.	4.5	18
51	Small-scale Dynamo in Supernova-driven Interstellar Turbulence. <i>Astrophysical Journal Letters</i> , 2021, 910, L15.	8.3	18
52	Open and closed boundaries in large-scale convective dynamos. <i>Astronomy and Astrophysics</i> , 2010, 518, A22.	5.1	18
53	Oscillatory large-scale dynamos from Cartesian convection simulations. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2013, 107, 244-257.	1.2	17
54	Differences in the solar cycle variability of simple and complex active regions during 1996–2018. <i>Astronomy and Astrophysics</i> , 2019, 629, A45.	5.1	17

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55	Sensitivity to luminosity, centrifugal force, and boundary conditions in spherical shell convection. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2020, 114, 8-34.	1.2	17
56	Multiperiodicity, modulations and flip-flops in variable star light curves. <i>Astronomy and Astrophysics</i> , 2013, 559, A97.	5.1	16
57	Large-scale dynamos in rapidly rotating plane layer convection. <i>Astronomy and Astrophysics</i> , 2018, 612, A97.	5.1	16
58	Kinematic frames and "reactive longitudes" does the Sun have a face?. <i>Astronomy and Astrophysics</i> , 2006, 460, 875-885.	5.1	16
59	Dependence of the large-scale vortex instability on latitude, stratification, and domain size. <i>Astronomische Nachrichten</i> , 2011, 332, 876-882.	1.2	15
60	Methods for compressible fluid simulation on GPUs using high-order finite differences. <i>Computer Physics Communications</i> , 2017, 217, 11-22.	7.5	14
61	Multiperiodicity, modulations, and flip-flops in variable star light curves. <i>Astronomy and Astrophysics</i> , 2015, 577, A120.	5.1	14
62	Local models of stellar convection. <i>Astronomy and Astrophysics</i> , 2005, 438, 403-410.	5.1	14
63	Starspot cycles from Doppler imaging and photometric time series as nonlinear dynamo. <i>Astronomische Nachrichten</i> , 2002, 323, 367-370.	1.2	13
64	Rotational dependence of turbulent transport coefficients in global convective dynamo simulations of solar-like stars. <i>Astronomy and Astrophysics</i> , 2020, 642, A66.	5.1	13
65	Turbulent stresses as a function of shear rate in a local disk model. <i>Astronomische Nachrichten</i> , 2009, 330, 92-99.	1.2	12
66	ANGULAR MOMENTUM TRANSPORT IN CONVECTIVELY UNSTABLE SHEAR FLOWS. <i>Astrophysical Journal</i> , 2010, 719, 67-76.	4.5	12
67	Doppler imaging of LQ Hydrae for 1998–2002. <i>Astronomy and Astrophysics</i> , 2015, 581, A69.	5.1	12
68	Small-scale dynamos in simulations of stratified turbulent convection. <i>Astronomische Nachrichten</i> , 2018, 339, 127-133.	1.2	12
69	Modelling supernova-driven turbulence. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2020, 114, 77-105.	1.2	12
70	Investigating Global Convective Dynamos with Mean-field Models: Full Spectrum of Turbulent Effects Required. <i>Astrophysical Journal Letters</i> , 2021, 919, L13.	8.3	12
71	Spot activity of II Peg. <i>Astronomische Nachrichten</i> , 2011, 332, 859-865.	1.2	11
72	Starspot activity of HD 199178. <i>Astronomy and Astrophysics</i> , 2019, 625, A79.	5.1	11

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73	Influence of Ohmic diffusion on the excitation and dynamics of MRI. <i>Astronomische Nachrichten</i> , 2010, 331, 34-45.	1.2	10
74	Singular Value Decomposition update and its application to (Inc)-OP-ELM. <i>Neurocomputing</i> , 2016, 174, 99-108.	5.9	10
75	A Knee Point in the Rotationâ€“Activity Scaling of Late-type Stars with a Connection to Dynamo Transitions. <i>Astrophysical Journal</i> , 2021, 910, 110.	4.5	10
76	Solar active regions: a nonparametric statistical analysis. <i>Astronomy and Astrophysics</i> , 2010, 513, A48.	5.1	10
77	High-resolution ammonia mapping of the very young protostellar core Chamaeleon-MMS1. <i>Astronomy and Astrophysics</i> , 2014, 564, A99.	5.1	10
78	Long-term spot monitoring of the young solar analogue V889 Herculis. <i>Astronomy and Astrophysics</i> , 2019, 622, A170.	5.1	10
79	Robustness of oscillatory $\langle i \rangle^2$ dynamos in spherical wedges. <i>Astronomy and Astrophysics</i> , 2016, 593, A134.	5.1	9
80	Estimating activity cycles with probabilistic methods. <i>Astronomy and Astrophysics</i> , 2018, 615, A111.	5.1	8
81	Physically motivated heat-conduction treatment in simulations of solar-like stars: effects on dynamo transitions. <i>Astronomy and Astrophysics</i> , 2021, 645, A141.	5.1	8
82	Compressible Test-field Method and Its Application to Shear Dynamos. <i>Astrophysical Journal</i> , 2022, 932, 8.	4.5	8
83	Doppler images of DI Piscium during 2004â€“2006. <i>Astronomy and Astrophysics</i> , 2014, 562, A139.	5.1	7
84	The supernova-regulated ISM. <i>Astronomy and Astrophysics</i> , 2018, 614, A101.	5.1	7
85	Spot evolution on LQ Hya from 2006â€“2017: temperature maps based on SOFIN and FIES data. <i>Astronomy and Astrophysics</i> , 2019, 629, A120.	5.1	7
86	Interaction of Large- and Small-scale Dynamos in Isotropic Turbulent Flows from GPU-accelerated Simulations. <i>Astrophysical Journal</i> , 2021, 907, 83.	4.5	7
87	Turbulent viscosity and magnetic Prandtl number from simulations of isotropically forced turbulence. <i>Astronomy and Astrophysics</i> , 2020, 636, A93.	5.1	7
88	Shapes of stellar activity cycles. <i>Astronomy and Astrophysics</i> , 2020, 638, A69.	5.1	7
89	Multiperiodicity, modulations and flip-flops in variable star light curves. <i>Astronomy and Astrophysics</i> , 2011, 535, A23.	5.1	6
90	DYNAMO ACTION IN THERMALLY UNSTABLE INTERSTELLAR FLOWS. <i>Astrophysical Journal</i> , 2012, 753, 32.	4.5	6

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91	Quantifying the effect of turbulent magnetic diffusion on the growth rate of the magneto-rotational instability. <i>Astronomy and Astrophysics</i> , 2014, 567, A139.	5.1	6
92	Solar Cycle Occurrence of Alfvénic Fluctuations and Related Geoefficiency. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 9848-9857.	2.4	6
93	Helicity proxies from linear polarisation of solar active regions. <i>Astronomy and Astrophysics</i> , 2020, 641, A46.	5.1	6
94	Scalable communication for high-order stencil computations using CUDA-aware MPI. <i>Parallel Computing</i> , 2022, 111, 102904.	2.1	6
95	Testing turbulent closure models with convection simulations. <i>Astronomische Nachrichten</i> , 2015, 336, 32-52.	1.2	5
96	Long-term variations of turbulent transport coefficients in a solarlike convective dynamo simulation. <i>Astronomische Nachrichten</i> , 2017, 338, 885-895.	1.2	5
97	On the Existence of Shear-current Effects in Magnetized Burgulence. <i>Astrophysical Journal</i> , 2020, 905, 179.	4.5	5
98	Zeeman-Doppler imaging of five young solar-type stars. <i>Astronomy and Astrophysics</i> , 2022, 659, A71.	5.1	5
99	Verification of Reynolds stress parameterizations from simulations. <i>Astronomische Nachrichten</i> , 2012, 333, 78-83.	1.2	4
100	$\langle i \rangle f \langle i \rangle$ -mode strengthening from a localised bipolar subsurface magnetic field. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2020, 114, 196-212.	1.2	4
101	Local models of stellar convection. <i>Astronomy and Astrophysics</i> , 2006, 448, 433-438.	5.1	4
102	Driving Galactic Turbulence by Supernova Explosions. <i>Studia Geophysica Et Geodaetica</i> , 1998, 42, 410-418.	0.5	3
103	Mean-field closure parameters for passive scalar turbulence. <i>Physica Scripta</i> , 2012, 86, 018406.	2.5	3
104	Inferring magnetic helicity spectrum in spherical domains: Method and example applications. <i>Astronomy and Astrophysics</i> , 2021, 654, A3.	5.1	3
105	Does the Sun have a face?. <i>Astronomische Nachrichten</i> , 2007, 328, 1020-1022.	1.2	2
106	Dynamically dominant magnetic fields in the diffuse interstellar medium. <i>Proceedings of the International Astronomical Union</i> , 2008, 4, 87-88.	0.0	2
107	Generation of mean flows in rotating anisotropic turbulence: The case of solar near-surface shear layer. <i>Astronomy and Astrophysics</i> , 0, , .	5.1	2
108	Modelling the interplay between epidemics and regional socio-economics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2022, 604, 127696.	2.6	2

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109	Estimates of the Strouhal number from numerical models of convection. <i>Astronomische Nachrichten</i> , 2005, 326, 186-189.	1.2	1
110	From convective to stellar dynamos. <i>Proceedings of the International Astronomical Union</i> , 2010, 6, 279-287.	0.0	1
111	Coronal ejections from convective spherical shell dynamos. <i>Proceedings of the International Astronomical Union</i> , 2011, 7, 154-158.	0.0	1
112	Gregor@night: The future high-resolution stellar spectrograph for the GREGOR solar telescope. <i>Astronomische Nachrichten</i> , 2012, 333, 901-910.	1.2	1
113	Method of frequency dependent correlations: investigating the variability of total solar irradiance. <i>Astronomy and Astrophysics</i> , 2017, 600, A9.	5.1	1
114	Stellar dynamos - perspectives and challenges. <i>EAS Publications Series</i> , 2003, 9, 9-9.	0.3	1
115	Modelling the turbulent magnetized ISM. <i>Astrophysics and Space Science</i> , 2004, 289, 449-457.	1.4	0
116	Stellar nonlinear dynamos: observations and modelling. <i>Proceedings of the International Astronomical Union</i> , 2008, 4, 417-418.	0.0	0
117	Method for estimating cycle lengths from multidimensional time series: Test cases and application to a massive 'in silico' dataset. , 2016, , .		0