Dmitry Sokolov

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Finite memory time and anisotropy effects for initial magnetic energy growth in random flow of conducting media. Physical Review E, 2021, 104, 015214.	0.8	4
2	Small-Scale Dynamo in Accretion Discs. Astronomy Reports, 2021, 65, 1054-1056.	0.2	1
3	Origin of the Continuous Component of the Variation in the Solar and Stellar Activity Spectra. Geomagnetism and Aeronomy, 2021, 61, 911-916.	0.2	1
4	Estimating the Energy of Solar and Stellar Superflares. Geomagnetism and Aeronomy, 2021, 61, 1063-1068.	0.2	2
5	Mean-Field Dynamo Model in Anisotropic Uniform Turbulent Flow with Short-Time Correlations. Galaxies, 2020, 8, 68.	1.1	2
6	Generation of strong magnetic fields in a nascent neutron star accounting for the chiral magnetic effect. Physical Review D, 2020, 101, .	1.6	8
7	Symmetries of Magnetic Fields Driven by Spherical Dynamos of Exoplanets and Their Host Stars. Symmetry, 2020, 12, 2085.	1.1	4
8	A Catalog of Bipolar Active Regions Violating the Hale Polarity Law, 1989 – 2018. Solar Physics, 2020, 295, 1.	1.0	12
9	The origin and effect of hemispheric helicity imbalance in solar dynamo. Journal of Plasma Physics, 2020, 86, .	0.7	5
10	Cyclic variations in the main components of the solar large-scale magnetic field. Monthly Notices of the Royal Astronomical Society, 2020, 492, 5582-5591.	1.6	8
11	Transient Regimes of the Screw Dynamo. Journal of Experimental and Theoretical Physics, 2020, 130, 287-292.	0.2	3
12	Path Integral Method in the Mean-field Model for the Magnetic Vector Potential. Geomagnetism and Aeronomy, 2020, 60, 989-992.	0.2	1
13	Cyclic Variations, Magnetic Morphology, and Complexity of Active Regions in Solar Cycles 23 and 24. Geomagnetism and Aeronomy, 2020, 60, 673-683.	0.2	8
14	A short and sudden increase of the magnetic field strength and the accompanying spectral variability in the O9.7 V star HD 54879. Monthly Notices of the Royal Astronomical Society, 2019, 484, 4495-4506	. 1.6	9
15	Magnetic Fields Around Galactic Discs. Galaxies, 2019, 7, 36.	1.1	6
16	Mirror Asymmetry and Helicity Invariants in Astrophysical Dynamos. Geomagnetism and Aeronomy, 2019, 59, 799-805.	0.2	0
17	Dynamo theory and perspectives of forecasting solar cycles. Journal of Atmospheric and Solar-Terrestrial Physics, 2018, 176, 10-14.	0.6	2
18	Resonances in Spherical Dynamos and Super-Flares. Astronomy Reports, 2018, 62, 689-695.	0.2	0

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19	Traces of Periodicity in the Observational Data on Magnetic Fields of Celestial Bodies and the Dynamo Models. Geomagnetism and Aeronomy, 2018, 58, 888-892.	0.2	0
20	Combining Faraday Tomography and Wavelet Analysis. Galaxies, 2018, 6, 121.	1.1	4
21	Cycle-dependent and cycle-independent surface tracers of solar magnetic activity. Proceedings of the International Astronomical Union, 2018, 14, 342-343.	0.0	1
22	Path integrals for mean-field equations in nonlinear dynamos. Journal of Plasma Physics, 2018, 84, .	0.7	6
23	Magnetic energy transient growth in the subcritical Kazantsev model. Physical Review E, 2018, 97, 063108.	0.8	5
24	Superflares on Giant Stars. Astronomy Reports, 2018, 62, 513-519.	0.2	8
25	Geomagnetic Reversals and Dynamo Bursts in a Simple Geodynamo Model. Izvestiya, Physics of the Solid Earth, 2018, 54, 652-657.	0.2	2
26	Can Superflares Occur on the Sun? A View from Dynamo Theory. Astronomy Reports, 2018, 62, 72-80.	0.2	17
27	Intermittency of the Solar Magnetic Field and Solar Magnetic Activity Cycle. Solar Physics, 2017, 292, 1.	1.0	3
28	Leptogenesis and baryon asymmetry in the early Universe for the case arbitrary hypermagnetic helicity. Journal of Physics: Conference Series, 2017, 798, 012086.	0.3	0
29	Two populations of the solar magnetic field. Monthly Notices of the Royal Astronomical Society, 2017, 472, 2575-2582.	1.6	4
30	An Optical Atmospheric Phenomenon Observed in 1670 over the City of Astrakhan Was Not a Mid-Latitude Aurora. Solar Physics, 2017, 292, 1.	1.0	16
31	Earth's magnetic moment during geomagnetic reversals. Izvestiya, Physics of the Solid Earth, 2017, 53, 855-859.	0.2	4
32	Parity fluctuations in stellar dynamos. Astronomy Reports, 2017, 61, 878-882.	0.2	6
33	The intermittency of vector fields and random-number generators. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2017, 72, 449-453.	0.1	0
34	Small-Scale Magnetic Helicity and Nonlinear Stabilization of the Dynamo. Geomagnetism and Aeronomy, 2017, 57, 844-848.	0.2	3
35	The phase shift between the hemispheres in the solar activity cycle. Astronomy Reports, 2016, 60, 949-953.	0.2	2
36	Oppositely directed waves of stellar activity in simple dynamo models. Astronomy Reports, 2016, 60, 682-686.	0.2	3

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37	Generation of hypermagnetic helicity and leptogenesis in the early Universe. Physical Review D, 2016, 93, .	1.6	20
38	EVOLUTION OF MAGNETIC HELICITY AND ENERGY SPECTRA OF SOLAR ACTIVE REGIONS. Astrophysical Journal, 2016, 819, 146.	1.6	23
39	Intermittency and random matrices. Journal of Plasma Physics, 2015, 81, .	0.7	5
40	The Maunder minimum (1645–1715) was indeed a grand minimum: A reassessment of multiple datasets. Astronomy and Astrophysics, 2015, 581, A95.	2.1	158
41	Periodicities in the geomagnetic polarity timescale. Izvestiya, Physics of the Solid Earth, 2015, 51, 764-767.	0.2	2
42	The Properties of the Tilts of Bipolar Solar Regions. Solar Physics, 2015, 290, 351-361.	1.0	12
43	Statistics of the geomagnetic dipole reversals based on paleomagnetic observations and simple geodynamo models. Izvestiya, Physics of the Solid Earth, 2015, 51, 383-391.	0.2	6
44	Problems of magnetic dynamo. Physics-Uspekhi, 2015, 58, 601-605.	0.8	16
45	Dynamos: from an astrophysical model to laboratory experiments. Physics-Uspekhi, 2014, 57, 292-311.	0.8	36
46	MAGNETIC HELICITY AND ENERGY SPECTRA OF A SOLAR ACTIVE REGION. Astrophysical Journal Letters, 2014, 784, L45.	3.0	24
47	Small-scale dynamo in Riemannian spaces of constant curvature. Geophysical and Astrophysical Fluid Dynamics, 2013, 107, 403-410.	0.4	2
48	What can we say about seed fields for galactic dynamos?. Geophysical and Astrophysical Fluid Dynamics, 2013, 107, 3-10.	0.4	2
49	The origin of the helicity hemispheric sign rule reversals in the mean-field solar-type dynamo. Monthly Notices of the Royal Astronomical Society, 2013, 435, 2581-2588.	1.6	18
50	HELICITY CONSERVATION IN NONLINEAR MEAN-FIELD SOLAR DYNAMO. Astrophysical Journal, 2013, 768, 46.	1.6	22
51	Magnetic field reversals and galactic dynamos. Geophysical and Astrophysical Fluid Dynamics, 2013, 107, 497-505.	0.4	11
52	An asymptotic solution of a kinematic -dynamo with meridional circulation. Geophysical and Astrophysical Fluid Dynamics, 2013, 107, 667-714.	0.4	7
53	Magnetic Helicity of Solar Active Regions as Revealed by Vector Magnetograms and Coronal X-Ray Images. Publication of the Astronomical Society of Japan, 2012, 64, 54.	1.0	3
54	Waldmeier relations and the solar cycle dynamics by the mean-field dynamos. Proceedings of the International Astronomical Union, 2012, 8, 595-596.	0.0	0

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55	Current Status of Turbulent Dynamo Theory. Space Science Reviews, 2012, 169, 123-157.	3.7	127
56	Star formation rate and magnetic fields in spiral galaxies. Astronomy Letters, 2012, 38, 543-548.	0.1	8
57	Geomagnetic reversals in a simple geodynamo model. Geomagnetism and Aeronomy, 2012, 52, 254-260.	0.2	16
58	Variations of the solar cycle profile in a solar dynamo with fluctuating dynamo governing parameters. Astronomy and Astrophysics, 2012, 542, A26.	2.1	41
59	A model for grand minima and geomagnetic reversals. Proceedings of the International Astronomical Union, 2011, 7, 360-366.	0.0	1
60	Magnetic fields in the radiative-transport zone and the solar cycle. Astronomy Reports, 2011, 55, 456-462.	0.2	2
61	Magnetic field correlation tensor in a universe with a multiply connected space section. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2011, 66, 203-205.	0.1	Ο
62	The fluctuating α-effect and Waldmeier relations in the nonlinear dynamo models. Physica Scripta, 2011, 84, 065903.	1.2	11
63	LARGE-SCALE SOFT X-RAY LOOPS AND THEIR MAGNETIC CHIRALITY IN BOTH HEMISPHERES. Astrophysical Journal, 2010, 719, 1955-1963.	1.6	15
64	Parker's dynamo as specific behavior of a dynamical system. Astronomy Reports, 2010, 54, 247-253.	0.2	17
65	Parker's dynamo near the excitation threshold. Astronomy Reports, 2010, 54, 762-766.	0.2	1
66	The solar cycle from data on the large-scale surface magnetic field and solar-dynamo theory. Astronomy Reports, 2010, 54, 1042-1046.	0.2	2
67	Magnetic field correlation tensor in spaces of constant curvature. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2010, 65, 155-158.	0.1	1
68	A new dynamo pattern revealed by solar helical magnetic fields. Monthly Notices of the Royal Astronomical Society: Letters, 2010, 402, L30-L33.	1.2	65
69	Hypermagnetic helicity flux in the nuclei of a new phase in the electroweak phase transition. JETP Letters, 2010, 91, 215-218.	0.4	8
70	The WKB approximation for the interface dynamo. Geophysical and Astrophysical Fluid Dynamics, 2010, 104, 631-641.	0.4	3
71	Dynamo in fluctuatingABCflow. Geophysical and Astrophysical Fluid Dynamics, 2010, 104, 183-188.	0.4	3
72	Mean-field dynamos in random Arnold-Beltrami-Childress and Roberts flows. Physical Review E, 2009, 79, 046302.	0.8	28

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73	Differential rotation of some HK Project stars and the butterfly diagrams. , 2009, , .		0
74	Magnetic and electric-current helicities in very simple models of the solar dynamo. Astronomy Reports, 2009, 53, 160-165.	0.2	13
75	Stability of the solar neutrino flux derived from SAGE data. Astronomy Reports, 2009, 53, 166-172.	0.2	2
76	Toroidal magnetic field of the Sun from data on Hale-rule-violating sunspot groups. Astronomy Reports, 2009, 53, 281-285.	0.2	20
77	Contour-crossing statistics for small scale structure on radio polarized intensity maps of the interstellar medium. Astronomy Reports, 2009, 53, 879-885.	0.2	0
78	Magnetic field in a fluctuating ABC flow. Astronomy Letters, 2009, 35, 321-325.	0.1	3
79	Is the baryon asymmetry of the Universe related to galactic magnetic fields?. Physical Review D, 2009, 80, .	1.6	28
80	Sunspot cycles and Grand Minima. Proceedings of the International Astronomical Union, 2009, 5, 111-119.	0.0	6
81	Meridional circulation and dynamo-wave propagation. Astronomy Reports, 2008, 52, 157-163.	0.2	16
82	Dynamo model with a small number of modes and magnetic activity of T Tauri stars. Astronomy Letters, 2008, 34, 761-771.	0.1	14
83	Statistically homogeneous and isotropic curvature fluctuations in general relativity. Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika), 2008, 63, 109-111.	0.1	2
84	What can we hope to know about the symmetry properties of stellar magnetic fields. Monthly Notices of the Royal Astronomical Society, 2008, 388, 416-420.	1.6	30
85	Dynamo action in Möbius flow. Physical Review E, 2008, 78, 025301.	0.8	3
86	Magnetic fields in barred galaxies. Astronomy and Astrophysics, 2007, 465, 157-170.	2.1	16
87	Cosmological magnetic dynamo in the early Universe. Astronomy Reports, 2007, 51, 781-786.	0.2	0
88	Amplification of mean magnetic field and magnetic helicity production in hot lepton plasma of early universe. Physics of Atomic Nuclei, 2007, 70, 150-155.	0.1	0
89	Magnetic and current helicities in solar dynamos. Advances in Space Research, 2007, 39, 1670-1673.	1.2	2
90	Solar cycle according to mean magnetic field data. Monthly Notices of the Royal Astronomical Society, 2006, 365, 827-832.	1.6	31

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91	Large- and small-scale interactions and quenching in anα2-dynamo. Physical Review E, 2006, 74, 066310.	0.8	26
92	Non-axisymmetric α2Ω-dynamo waves in thin stellar shells. Geophysical and Astrophysical Fluid Dynamics, 2005, 99, 309-336.	0.4	15
93	A Dynamo Wave near the Solar Equator. Astronomy Reports, 2005, 49, 337.	0.2	9
94	Light propagation in a universe with spatial inhomogeneities. Astrophysics and Space Science, 2005, 298, 409-418.	0.5	11
95	Magnetic Fields and Mass Inflow in Central Regions of Barred Galaxies. AIP Conference Proceedings, 2005, , .	0.3	3
96	LARGE-SCALE COSMOLOGICAL MAGNETIC FIELDS AND MAGNETIC HELICITY. International Journal of Modern Physics D, 2005, 14, 1839-1854.	0.9	31
97	The chronology of Neolithic dispersal in Central and Eastern Europe. Journal of Archaeological Science, 2005, 32, 1441-1458.	1.2	81
98	Magnetic fields in barred galaxies. Astronomy and Astrophysics, 2005, 444, 739-765.	2.1	121
99	Large-Scale Magnetic Field Generation byαEffect Driven by Collective Neutrino-Plasma Interaction. Physical Review Letters, 2004, 92, 131301.	2.9	42
100	Near-polar starspots and polar dynamo waves. Astronomy Reports, 2004, 48, 522-524.	0.2	1
101	Current helicity and the small-scale dynamo. Astronomy Reports, 2004, 48, 949-953.	0.2	3
102	Non-local effects in the mean-field disc dynamo: II – numerical and asymptotic solutions. Geophysical and Astrophysical Fluid Dynamics, 2004, 98, 345-363.	0.4	3
103	GALACTIC DYNAMO AND COSMOLOGICAL MAGNETIC FIELDS. , 2004, , .		Ο
104	Model of a multiscaled MHD dynamo. Astronomy Reports, 2003, 47, 511-516.	0.2	9
105	Topology of the Universe and topological inflation. Astronomy Reports, 2003, 47, 975-978.	0.2	Ο
106	The fast galactic dynamo. Astronomical and Astrophysical Transactions, 2003, 22, 15-18.	0.2	0
107	Magnetic fluctuations with a zero mean field in a random fluid flow with a finite correlation time and a small magnetic diffusion. Physical Review E, 2002, 65, 036303.	0.8	27
108	Local and Nonlocal Magnetic Diffusion and Alpha-Effect Tensors in Shear Flow Turbulence. Geophysical and Astrophysical Fluid Dynamics, 2002, 96, 319-344.	0.4	88

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109	Clustering instability of the spatial distribution of inertial particles in turbulent flows. Physical Review E, 2002, 66, 036302.	0.8	48
110	Modeling the generation of the magnetic field in NGC 5775. Astronomy Reports, 2002, 46, 871-873.	0.2	3
111	Magnetic fields in barred galaxies. Astronomy and Astrophysics, 2002, 391, 83-102.	2.1	50
112	Radiocarbon Chronology of Upper Palaeolithic Sites in Eastern Europe at Improved Resolution. Journal of Archaeological Science, 2001, 28, 699-712.	1.2	29
113	The fast dynamo in interstellar turbulence. Astronomy Reports, 2001, 45, 95-99.	0.2	4
114	Magnetic fronts in galaxies. Astronomy Reports, 2001, 45, 497-501.	0.2	4
115	Strange behavior of a passive scalar in a linear velocity field. Physical Review E, 2001, 63, 046305.	0.8	6
116	Non-local effects in the mean-field disc dynamo I. An asymptotic expansion. Geophysical and Astrophysical Fluid Dynamics, 2000, 93, 97-114.	0.4	11
117	A two-dimensional asymptotic solution for a dynamo wave in the light of the solar internal rotation. Monthly Notices of the Royal Astronomical Society, 2000, 315, 778-790.	1.6	49
118	Solar internal rotation and dynamo waves: A two-dimensional asymptotic solution in the convection zone. Journal of Astrophysics and Astronomy, 2000, 21, 379-380.	0.4	0
119	Passive scalar transport in a random flow with a finite renewal time:â€,â€,Mean-field equations. Physical Review E, 2000, 61, 2617-2625.	0.8	34
120	Neutrino conversions in random magnetic fields and $\hat{1}/2\hat{1}f$ efrom the Sun. Physical Review D, 1999, 59, .	1.6	8
121	Kinematic dynamo wave in the vicinity of the solar pole. Geophysical and Astrophysical Fluid Dynamics, 1999, 91, 147-167.	0.4	19
122	Depolarization and Faraday effects in galaxies. Monthly Notices of the Royal Astronomical Society, 1998, 299, 189-206.	1.6	361
123	Boundary effects and propagating, magnetic fronts in disc dynamos. Geophysical and Astrophysical Fluid Dynamics, 1998, 89, 285-308.	0.4	30
124	Asymptotic properties of a nonlinéar αï‰-dynamo wave: Period, amplitude and latitude dependence. Geophysical and Astrophysical Fluid Dynamics, 1997, 86, 249-285.	0.4	41
125	Time scales and trends in the central England temperature data (1659-1990): A wavelet analysis. Geophysical Research Letters, 1997, 24, 1351-1354.	1.5	108
126	HALF-WIDTH OF A SOLAR DYNAMO WAVE IN PARKER'S MIGRATORY DYNAMO. Solar Physics, 1997, 173, 1-14.	1.0	21

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127	Magnetic Field and Rotation in Lower Main-Sequence Stars: An Empirical Time-Dependent Magnetic Bode's Relation?. Astrophysical Journal, 1996, 457, L99-L102.	1.6	146
128	GALACTIC MAGNETISM: Recent Developments and Perspectives. Annual Review of Astronomy and Astrophysics, 1996, 34, 155-206.	8.1	830
129	A dynamo wave in an inhomogeneous medium. Geophysical and Astrophysical Fluid Dynamics, 1995, 81, 113-129.	0.4	55
130	Solar Rotation, Irradiance Changes and Climate. International Astronomical Union Colloquium, 1994, 143, 244-251.	0.1	1
131	Parametric resonance in a thin disc dynamo. Astrophysics and Space Science, 1993, 208, 245-252.	0.5	9
132	Neutrino mass and the origin of galactic magnetic fields. Physical Review D, 1993, 48, 4557-4561.	1.6	18
133	Global magnetic patterns in the Milky Way and the Andromeda nebula. Monthly Notices of the Royal Astronomical Society, 1993, 264, 285-297.	1.6	66
134	Simple models of nonlinear fluctuation dynamo. Geophysical and Astrophysical Fluid Dynamics, 1993, 68, 237-261.	0.4	14
135	Hydromagnetic Dynamo in Astrophysical Jets. , 1993, , 367-371.		4
136	Nonlinear Dynamo in a Disk Galaxy. , 1993, , 349-353.		0
137	On the Parametric Resonance in Thin Disk Galactic Dynamo. , 1993, , 381-382.		Ο
138	A steady state of the disc dynamo. Geophysical and Astrophysical Fluid Dynamics, 1992, 65, 231-244.	0.4	8
139	Magnetic ropes in the solar wind. Journal of Geophysical Research, 1992, 97, 15007-15010.	3.3	2
140	On diffusion of the tangential fluctuations of the geomagnetic field through the mantle. Astronomische Nachrichten, 1992, 313, 115-123.	0.6	0
141	On the parametric resonance in a thin disk galactic dynamo. Astronomische Nachrichten, 1992, 313, 349-352.	0.6	1
142	Ultra-high energy cosmic rays in the galactic corona. Astrophysics and Space Science, 1991, 179, 141-145.	0.5	1
143	Diffusion of a quantum particle in time-dependent random potential. Journal De Physique, I, 1991, 1, 1213-1215.	1.2	0
144	The galactic dynamo: Axisymmetric and non-axisymmetric modes. Geophysical and Astrophysical Fluid Dynamics, 1990, 50, 131-146.	0.4	7

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145	Regular magnetic fields in coronae of spiral galaxies. Nature, 1990, 347, 51-53.	13.7	63
146	Maximally-efficient-generation approach in the dynamo theory. Geophysical and Astrophysical Fluid Dynamics, 1990, 52, 125-139.	0.4	15
147	Turbulent generation of magnetic fields in astrophysical jets. Astrophysics and Space Science, 1988, 140, 165-174.	0.5	12
148	Excitation of non-axially symmetric modes of the Sun's mean magnetic field. Solar Physics, 1988, 115, 5-15.	1.0	24
149	Magnetism of spiral galaxies. Nature, 1988, 336, 341-347.	13.7	72
150	Hydromagnetic screw dynamo. Journal of Fluid Mechanics, 1988, 197, 39-56.	1.4	55
151	Kinematic dynamo problem in a linear velocity field. Journal of Fluid Mechanics, 1984, 144, 1-11.	1.4	145
152	Mean Magnetic Field in Renovating Random Flow. Astronomische Nachrichten, 1984, 305, 119-125.	0.6	45
153	A dynamo theorem. Geophysical and Astrophysical Fluid Dynamics, 1984, 30, 241-259.	0.4	36
154	Activity cycle periods in late-type stars. Astrophysics and Space Science, 1983, 95, 131-136.	0.5	16
155	Asymptotic properties of disk dynamo. Astrophysics and Space Science, 1981, 80, 145-155.	0.5	8
156	Helicity, linkage and dynamo action. Geophysical and Astrophysical Fluid Dynamics, 1980, 16, 73-82.	0.4	6
157	The disk dynamo. Astrophysics and Space Science, 1979, 66, 369-384.	0.5	11
158	The scale and strength of the galactic magnetic field according to the pulsar data. Astrophysics and Space Science, 1977, 52, 365-374.	0.5	11