

# Anvar M Shukurov

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/574536/publications.pdf>

Version: 2024-02-01

146  
papers

5,511  
citations

116194

36  
h-index

100535

70  
g-index

149  
all docs

149  
docs citations

149  
times ranked

3097  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mean fields and fluctuations in compressible magnetohydrodynamic flows. Geophysical and Astrophysical Fluid Dynamics, 2022, 116, 261-289.	0.4	2
2	OCT4 expression in human embryonic stem cells: spatio-temporal dynamics and fate transitions. Physical Biology, 2021, 18, 026003.	0.8	6
3	A mathematical modelling framework for the regulation of intra-cellular OCT4 in human pluripotent stem cells. PLoS ONE, 2021, 16, e0254991.	1.1	3
4	Statistical Topology and the Random Interstellar Medium. Journal of the American Statistical Association, 2020, 115, 625-635.	1.8	5
5	Parameters of the Supernova-Driven Interstellar Turbulence. Galaxies, 2020, 8, 56.	1.1	8
6	The recent advances in the mathematical modelling of human pluripotent stem cells. SN Applied Sciences, 2020, 2, 276.	1.5	12
7	Saturation mechanism of the fluctuation dynamo at $\text{Pr} < M < \hat{\Lambda} < \%$ . Physical Review Fluids, 2020, 5, .	1.0	34
8	The supernova-regulated ISM – VI. Magnetic effects on the structure of the interstellar medium. Monthly Notices of the Royal Astronomical Society, 2019, 488, 5065-5074.	1.6	7
9	Seeding hESCs to achieve optimal colony clonality. Scientific Reports, 2019, 9, 15299.	1.6	4
10	Fickian and non-Fickian diffusion of cosmic rays. Monthly Notices of the Royal Astronomical Society, 2019, 487, 975-980.	1.6	4
11	A physical approach to modelling large-scale galactic magnetic fields. Astronomy and Astrophysics, 2019, 623, A113.	2.1	21
12	IMAGINE: Modeling the Galactic Magnetic Field. Galaxies, 2019, 7, 17.	1.1	8
13	The Origin of Large-Scale Magnetic Fields in Low-Mass Galaxies. Galaxies, 2019, 7, 91.	1.1	1
14	Quantification of the morphological characteristics of hESC colonies. Scientific Reports, 2019, 9, 17569.	1.6	27
15	Evolution of galactic magnetic fields. Monthly Notices of the Royal Astronomical Society, 2019, 483, 2424-2440.	1.6	23
16	Endothelial Differentiation G Protein-Coupled Receptor 5 Plays an Important Role in Induction and Maintenance of Pluripotency. Stem Cells, 2019, 37, 318-331.	1.4	4
17	Relative distribution of cosmic rays and magnetic fields. Monthly Notices of the Royal Astronomical Society, 2018, 473, 4544-4557.	1.6	28
18	Statistical properties of Faraday rotation measure in external galaxies – I. Intervening disc galaxies. Monthly Notices of the Royal Astronomical Society, 2018, 477, 2528-2546.	1.6	14

#	ARTICLE	IF	CITATIONS
19	IMAGINE: a comprehensive view of the interstellar medium, Galactic magnetic fields and cosmic rays. <i>Journal of Cosmology and Astroparticle Physics</i> , 2018, 2018, 049-049.	1.9	49
20	Topological signatures of interstellar magnetic fields – I. Betti numbers and persistence diagrams. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 475, 1843-1858.	1.6	15
21	Topological data analysis and diagnostics of compressible magnetohydrodynamic turbulence. <i>Journal of Plasma Physics</i> , 2018, 84, .	0.7	5
22	Cosmic Rays in Intermittent Magnetic Fields. <i>Astrophysical Journal Letters</i> , 2017, 839, L16.	3.0	36
23	Supernova-regulated ISM. V. Space and Time Correlations. <i>Astrophysical Journal</i> , 2017, 850, 4.	1.6	20
24	Dynamics of single human embryonic stem cells and their pairs: a quantitative analysis. <i>Scientific Reports</i> , 2017, 7, 570.	1.6	12
25	The distribution of mean and fluctuating magnetic fields in the multiphase interstellar medium. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2017, 464, L105-L109.	1.2	23
26	Magnetic and gaseous spiral arms in M83. <i>Astronomy and Astrophysics</i> , 2016, 585, A21.	2.1	31
27	THE PARKER INSTABILITY IN DISK GALAXIES. <i>Astrophysical Journal</i> , 2016, 816, 2.	1.6	30
28	STATISTICAL TESTS OF GALACTIC DYNAMO THEORY. <i>Astrophysical Journal</i> , 2016, 833, 43.	1.6	13
29	Global diffusion of cosmic rays in random magnetic fields. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 457, 3975-3987.	1.6	45
30	Productivity of Premodern Agriculture in the Cucuteni–Trypillia Area. <i>Human Biology</i> , 2015, 87, 235.	0.4	13
31	Galactic magnetic fields and hierarchical galaxy formation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 450, 3472-3489.	1.6	18
32	MAGNETIC FIELDS IN A SAMPLE OF NEARBY SPIRAL GALAXIES. <i>Astrophysical Journal</i> , 2015, 799, 35.	1.6	39
33	Magnetic spiral arms and galactic outflows. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2015, 446, L6-L10.	1.2	31
34	3D morphology of a random field from its 2D cross-section. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2015, 447, L55-L59.	1.2	9
35	The Near-Eastern Roots of the Neolithic in South Asia. <i>PLoS ONE</i> , 2014, 9, e95714.	1.1	44
36	Depolarization of synchrotron radiation in a multilayer magneto-ionic medium. <i>Astronomy and Astrophysics</i> , 2014, 567, A82.	2.1	10

#	ARTICLE	IF	CITATIONS
37	Constraining regular and turbulent magnetic field strengths in M51 via Faraday depolarization. <i>Astronomy and Astrophysics</i> , 2014, 568, A83.	2.1	10
38	Regional variations in the European Neolithic dispersal: the role of the coastlines. <i>Antiquity</i> , 2014, 88, 1291-1302.	0.5	9
39	Non-linear galactic dynamos: a toolbox. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 443, 1867-1880.	1.6	34
40	Asymptotic solutions for mean-field slab dynamos. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2014, 108, 568-583.	0.4	5
41	An observational test for correlations between cosmic rays and magnetic fields. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 437, 2201-2216.	1.6	29
42	Galactic spiral patterns and dynamo action – I. A new twist on magnetic arms. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 428, 3569-3589.	1.6	53
43	Galactic spiral patterns and dynamo action – II. Asymptotic solutions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 433, 3274-3289.	1.6	19
44	The supernova-regulated ISM – I. The multiphase structure. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 432, 1396-1423.	1.6	86
45	The supernova-regulated ISM – II. The mean magnetic field. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2013, 430, L40-L44.	1.2	70
46	Coherent vortex structures in quantum turbulence. <i>Europhysics Letters</i> , 2012, 98, 26002.	0.7	48
47	NEW CONSTRAINTS ON THE GALACTIC HALO MAGNETIC FIELD USING ROTATION MEASURES OF EXTRAGALACTIC SOURCES TOWARD THE OUTER GALAXY. <i>Astrophysical Journal</i> , 2012, 755, 21.	1.6	49
48	Magnetic Fields in the Milky Way Halo. <i>Proceedings of the International Astronomical Union</i> , 2012, 10, 403-403.	0.0	1
49	Galactic spiral patterns and dynamo action. <i>Proceedings of the International Astronomical Union</i> , 2012, 8, 249-250.	0.0	2
50	Inference for population dynamics in the Neolithic period. <i>Annals of Applied Statistics</i> , 2012, 6, .	0.5	11
51	Bayesian inference for a wave-front model of the neolithization of Europe. <i>Physical Review E</i> , 2012, 86, 016105.	0.8	13
52	MODELING THE MAGNETIC FIELD IN THE GALACTIC DISK USING NEW ROTATION MEASURE OBSERVATIONS FROM THE VERY LARGE ARRAY. <i>Astrophysical Journal</i> , 2011, 728, 97.	1.6	137
53	Magnetic fields and spiral arms in the galaxy M51. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 412, 2396-2416.	1.6	222
54	Fluctuation dynamo based on magnetic reconnections. <i>Astronomische Nachrichten</i> , 2010, 331, 46-62.	0.6	1

#	ARTICLE	IF	CITATIONS
55	Editors' note: Astron. Nachr. 1/2010. Astronomische Nachrichten, 2010, 331, 4-4.	0.6	0
56	Modelling the Neolithic transition in a heterogeneous environment. Journal of Archaeological Science, 2010, 37, 2929-2937.	1.2	27
57	A SURVEY OF EXTRAGALACTIC FARADAY ROTATION AT HIGH GALACTIC LATITUDE: THE VERTICAL MAGNETIC FIELD OF THE MILKY WAY TOWARD THE GALACTIC POLES. Astrophysical Journal, 2010, 714, 1170-1186.	1.6	127
58	The Spread of the Neolithic in the South East European Plain: Radiocarbon Chronology, Subsistence, and Environment. Radiocarbon, 2009, 51, 783-793.	0.8	11
59	Reconnecting flux-rope dynamo. Physical Review E, 2009, 80, 055301.	0.8	9
60	Stretching in a model of a turbulent flow. Physica D: Nonlinear Phenomena, 2009, 238, 365-369.	1.3	4
61	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
62	Multiple sources of the European Neolithic: Mathematical modelling constrained by radiocarbon dates. Quaternary International, 2009, 203, 10-18.	0.7	27
63	Climate, subsistence and human movements in the Western Dvina " Lovat River Basins. Quaternary International, 2009, 203, 52-66.	0.7	12
64	Dynamo action in M"bius flow. Physical Review E, 2008, 78, 025301.	0.8	3
65	Dynamically dominant magnetic fields in the diffuse interstellar medium. Proceedings of the International Astronomical Union, 2008, 4, 87-88.	0.0	2
66	Relative distributions of cosmic ray electrons and magnetic fields in the ISM. Proceedings of the International Astronomical Union, 2008, 4, 93-94.	0.0	0
67	Course 4 Astrophysical dynamos. Les Houches Summer School Proceedings, 2008, , 251-299.	0.2	5
68	Magnetic Structures Produced by the Small-Scale Dynamo. Physical Review Letters, 2007, 99, 134501.	2.9	41
69	Magnetic fields in barred galaxies. Astronomy and Astrophysics, 2007, 465, 157-170.	2.1	16
70	Galactic dynamos supported by magnetic helicity fluxes. Monthly Notices of the Royal Astronomical Society, 2007, 377, 874-882.	1.6	84
71	Depolarization canals and interstellar turbulence. EAS Publications Series, 2007, 23, 109-128.	0.3	10
72	Galactic Dynamos. The Fluid Mechanics of Astrophysics and Geophysics, 2007, , 314-359.	0.2	4

#	ARTICLE	IF	CITATIONS
73	The role of waterways in the spread of the Neolithic. <i>Journal of Archaeological Science</i> , 2006, 33, 641-652.	1.2	135
74	Galactic dynamo and helicity losses through fountain flow. <i>Astronomy and Astrophysics</i> , 2006, 448, L33-L36.	2.1	119
75	Canals in Milky Way radio polarization maps. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2006, 371, L21-L25.	1.2	16
76	Evolving turbulence and magnetic fields in galaxy clusters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2006, 366, 1437-1454.	1.6	217
77	Simulating field-aligned diffusion of a cosmic ray gas. <i>Monthly Notices of the Royal Astronomical Society</i> , 2006, 373, 643-652.	1.6	36
78	The origin and evolution of cluster magnetism. <i>Astronomische Nachrichten</i> , 2006, 327, 583-586.	0.6	3
79	Magnetic Fields and Mass Inflow in Central Regions of Barred Galaxies. <i>AIP Conference Proceedings</i> , 2005, , .	0.3	3
80	Reply to Y. V. Kuzmin, S. G. Keates ( <i>Journal of Archaeological Science</i> 31 (2004) 141-143). <i>Journal of Archaeological Science</i> , 2005, 32, 1125-1130.	1.2	4
81	The chronology of Neolithic dispersal in Central and Eastern Europe. <i>Journal of Archaeological Science</i> , 2005, 32, 1441-1458.	1.2	81
82	Magnetic fields in barred galaxies. <i>Astronomy and Astrophysics</i> , 2005, 444, 739-765.	2.1	121
83	The magnetic field of M 31 from multi-wavelength radio polarization observations. <i>Astronomy and Astrophysics</i> , 2004, 414, 53-67.	2.1	88
84	The effects of spiral arms on the multi-phase ISM. <i>Astrophysics and Space Science</i> , 2004, 289, 319-322.	0.5	13
85	Self-Regulating Supernova Heating in Interstellar Medium Simulations. <i>Astrophysics and Space Science</i> , 2004, 292, 267-272.	0.5	1
86	Outflows from Dynamo-Active Protostellar Accretion Discs. <i>Astrophysics and Space Science</i> , 2004, 292, 493-500.	0.5	0
87	Non-local effects in the mean-field disc dynamo: II - numerical and asymptotic solutions. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2004, 98, 345-363.	0.4	3
88	Accretion disc dynamos opened up by external magnetic fields. <i>Astronomy and Astrophysics</i> , 2004, 413, 403-414.	2.1	8
89	Magnetic Fields and Spiral Structure. , 2004, , 299-302.		0
90	Faraday ghosts: depolarization canals in the Galactic radio emission. <i>Monthly Notices of the Royal Astronomical Society</i> , 2003, 342, 496-500.	1.6	30

#	ARTICLE	IF	CITATIONS
91	Structured outflow from a dynamo active accretion disc. <i>Astronomy and Astrophysics</i> , 2003, 398, 825-844.	2.1	61
92	Systematic bias in interstellar magnetic field estimates. <i>Astronomy and Astrophysics</i> , 2003, 411, 99-107.	2.1	119
93	Nonlinear states of the screw dynamo. <i>Physical Review E</i> , 2002, 65, 036311.	0.8	13
94	The Origin of Magnetic Fields in Elliptical Galaxies. <i>Highlights of Astronomy</i> , 2002, 12, 731-732.	0.0	0
95	Summary of the Discussions. <i>Highlights of Astronomy</i> , 2002, 12, 745-748.	0.0	0
96	Colonization of Northern Eurasia by Modern Humans: Radiocarbon Chronology and Environment. <i>Journal of Archaeological Science</i> , 2002, 29, 593-606.	1.2	94
97	On the origin of galactic magnetic fields. <i>Astrophysics and Space Science</i> , 2002, 281, 285-288.	0.5	9
98	Wavelet tomography of the Galactic magnetic field. <i>Astronomy and Astrophysics</i> , 2002, 391, 361-368.	2.1	14
99	Magnetic fields in barred galaxies. <i>Astronomy and Astrophysics</i> , 2002, 391, 83-102.	2.1	50
100	On the Origin of Galactic Magnetic Fields. , 2002, , 285-288.		1
101	Radiocarbon Chronology of Upper Palaeolithic Sites in Eastern Europe at Improved Resolution. <i>Journal of Archaeological Science</i> , 2001, 28, 699-712.	1.2	29
102	Magnetic fields in barred galaxies. <i>Astronomy and Astrophysics</i> , 2001, 380, 55-71.	2.1	32
103	Hydrostatic equilibrium in a magnetized, warped Galactic disc. <i>Monthly Notices of the Royal Astronomical Society</i> , 2001, 325, 312-320.	1.6	19
104	Structures in the rotation measure sky. <i>Monthly Notices of the Royal Astronomical Society</i> , 2001, 325, 649-664.	1.6	84
105	The effects of vertical outflows on disk dynamos. <i>Astronomy and Astrophysics</i> , 2001, 370, 635-648.	2.1	25
106	Galactic dynamos with captured magnetic flux and an accretion flow. <i>Astronomy and Astrophysics</i> , 2001, 372, 1048-1063.	2.1	14
107	Turbulent Diamagnetism and Galactic Dynamo. , 2001, , 233-237.		0
108	Non-local effects in the mean-field disc dynamo I. An asymptotic expansion. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2000, 93, 97-114.	0.4	11

#	ARTICLE	IF	CITATIONS
109	Magnetic and optical spiral arms in the galaxy NGC 6946. Monthly Notices of the Royal Astronomical Society, 2000, 318, 925-937.	1.6	42
110	Vortical Motions Driven by Supernova Explosions. , 1999, , 127-131.		4
111	Depolarization and Faraday effects in galaxies. Monthly Notices of the Royal Astronomical Society, 1999, 303, 207-208.	1.6	17
112	Magnetic field as a tracer of sheared gas flow in barred galaxies. Nature, 1999, 397, 324-327.	13.7	75
113	A Supernova-regulated Interstellar Medium: Simulations of the Turbulent Multiphase Medium. Astrophysical Journal, 1999, 514, L99-L102.	1.6	168
114	Turbulence and Magnetic Fields in Clusters of Galaxies. Astrophysics and Space Science, 1998, 263, 87-90.	0.5	5
115	Galactic Spiral Arms and Dynamo Control Parameters. Studia Geophysica Et Geodaetica, 1998, 42, 391-396.	0.3	6
116	Depolarization and Faraday effects in galaxies. Monthly Notices of the Royal Astronomical Society, 1998, 299, 189-206.	1.6	361
117	Magnetic spiral arms in galaxies. Monthly Notices of the Royal Astronomical Society, 1998, 299, L21-L24.	1.6	39
118	Boundary effects and propagating, magnetic fronts in disc dynamos. Geophysical and Astrophysical Fluid Dynamics, 1998, 89, 285-308.	0.4	30
119	Anomalous persistence of bisymmetric magnetic structures in spiral galaxies. Monthly Notices of the Royal Astronomical Society, 1997, 292, 1-10.	1.6	44
120	GALACTIC MAGNETISM: Recent Developments and Perspectives. Annual Review of Astronomy and Astrophysics, 1996, 34, 155-206.	8.1	830
121	Topological pumping of magnetic fields by galactic fountains. Astronomical and Astrophysical Transactions, 1996, 11, 259-270.	0.2	1
122	Turbulence and magnetic fields in elliptical galaxies. Monthly Notices of the Royal Astronomical Society, 1996, 279, 229-239.	1.6	59
123	Galactic fountains as magnetic pumps. Monthly Notices of the Royal Astronomical Society, 1995, 276, 651-662.	1.6	22
124	Neutrino mass and the origin of galactic magnetic fields. Physical Review D, 1993, 48, 4557-4561.	1.6	18
125	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
126	Simple models of nonlinear fluctuation dynamo. Geophysical and Astrophysical Fluid Dynamics, 1993, 68, 237-261.	0.4	14



#	ARTICLE	IF	CITATIONS
127	Hydromagnetic Dynamo in Astrophysical Jets. Symposium - International Astronomical Union, 1993, 157, 367-371.	0.1	2
128	Hydromagnetic Dynamo in Astrophysical Jets. , 1993, , 367-371.		4
129	The Origin of Magnetic Field in a Swirling Jet. Astrophysics and Space Science Library, 1993, , 399-402.	1.0	0
130	A steady state of the disc dynamo. Geophysical and Astrophysical Fluid Dynamics, 1992, 65, 231-244.	0.4	8
131	Evolution of a magnetic blob in a helical flow. Astronomische Nachrichten, 1991, 312, 33-39.	0.6	6
132	Ultra-high energy cosmic rays in the galactic corona. Astrophysics and Space Science, 1991, 179, 141-145.	0.5	1
133	The galactic dynamo: Axisymmetric and non-axisymmetric modes. Geophysical and Astrophysical Fluid Dynamics, 1990, 50, 131-146.	0.4	7
134	Regular magnetic fields in coronae of spiral galaxies. Nature, 1990, 347, 51-53.	13.7	63
135	Galactic Dynamo Theory Confronted with Observations. Symposium - International Astronomical Union, 1990, 140, 119-124.	0.1	0
136	Maximally-efficient-generation approach in the dynamo theory. Geophysical and Astrophysical Fluid Dynamics, 1990, 52, 125-139.	0.4	15
137	Galactic Dynamo Theory Confronted with Observations. , 1990, , 119-124.		2
138	Intermittent Magnetic Fields Generated by Turbulence in Galaxies and Galaxy Clusters. , 1990, , 499-503.		2
139	The dynamo origin of magnetic fields in galaxy clusters. Monthly Notices of the Royal Astronomical Society, 1989, 241, 1-14.	1.6	78
140	Turbulent generation of magnetic fields in astrophysical jets. Astrophysics and Space Science, 1988, 140, 165-174.	0.5	12
141	Magnetism of spiral galaxies. Nature, 1988, 336, 341-347.	13.7	72
142	Hydromagnetic screw dynamo. Journal of Fluid Mechanics, 1988, 197, 39-56.	1.4	55
143	Oscillatory $\hat{I}_{\pm} <sup>2</sup> \hat{\in} dynamo: numerical investigation. Astronomische Nachrichten, 1987, 308, 89-100.$	0.6	34
144	Spectrum of the galactic magnetic fields. Astrophysics and Space Science, 1982, 82, 397-407.	0.5	33

#	ARTICLE	IF	CITATIONS
145	Mesoscale Magnetic Structures in Spiral Galaxies. , 0, , 113-135.		18
146	A Pan-European model of the Neolithic. Documenta Praehistorica, 0, 34, 139-154.	1.0	8