

# Frank Stefani

## List of Publications by Year in descending order

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190  
papers

3,954  
citations

117625

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161849

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193  
all docs

193  
docs citations

193  
times ranked

1030  
citing authors

#	ARTICLE	IF	CITATIONS
1	Detection of a Flow Induced Magnetic Field Eigenmode in the Riga Dynamo Facility. Physical Review Letters, 2000, 84, 4365-4368.	7.8	256
2	Magnetic Field Saturation in the Riga Dynamo Experiment. Physical Review Letters, 2001, 86, 3024-3027.	7.8	231
3	Experimental Evidence for Magnetorotational Instability in a Taylor-Couette Flow under the Influence of a Helical Magnetic Field. Physical Review Letters, 2006, 97, 184502.	7.8	151
4	Colloquium: Laboratory experiments on hydromagnetic dynamos. Reviews of Modern Physics, 2002, 74, 973-990.	45.6	98
5	Experimental Modeling of the Continuous Casting Process of Steel Using Low Melting Point Metal Alloys – the LIMMCAST Program. ISIJ International, 2010, 50, 1134-1141.	1.4	97
6	Contactless inductive flow tomography. Physical Review E, 2004, 70, 056306.	2.1	95
7	Experimental Evidence for a Transient Tayler Instability in a Cylindrical Liquid-Metal Column. Physical Review Letters, 2012, 108, 244501.	7.8	76
8	On the uniqueness of velocity reconstruction in conducting fluids from measurements of induced electromagnetic fields. Inverse Problems, 2000, 16, 1-9.	2.0	75
9	Experiments on the magnetorotational instability in helical magnetic fields. New Journal of Physics, 2007, 9, 295-295.	2.9	72
10	Helical magnetorotational instability in a Taylor-Couette flow with strongly reduced Ekman pumping. Physical Review E, 2009, 80, 066303.	2.1	70
11	Experimental Evidence for Nonaxisymmetric Magnetorotational Instability in a Rotating Liquid Metal Exposed to an Azimuthal Magnetic Field. Physical Review Letters, 2014, 113, 024505.	7.8	63
12	History and results of the Riga dynamo experiments. Comptes Rendus Physique, 2008, 9, 721-728.	0.9	59
13	Combined Electromagnetic Tomography for Determining Two-phase Flow Characteristics in the Submerged Entry Nozzle and in the Mold of a Continuous Casting Model. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2011, 42, 1201-1210.	2.1	59
14	MHD $\hat{\pm}2$ -dynamo, Squire equation and PT-symmetric interpolation between square well and harmonic oscillator. Journal of Mathematical Physics, 2005, 46, 063504.	1.1	58
15	Asymmetric Polarity Reversals, Bimodal Field Distribution, and Coherence Resonance in a Spherically Symmetric Mean-Field Dynamo Model. Physical Review Letters, 2005, 94, 184506.	7.8	57
16	Current-driven flow instabilities in large-scale liquid metal batteries, and how to tame them. Journal of Power Sources, 2014, 265, 166-173.	7.8	57
17	Sloshing instability and electrolyte layer rupture in liquid metal batteries. Physics of Fluids, 2017, 29, .	4.0	55
18	A contactless method for velocity reconstruction in electrically conducting fluids. Measurement Science and Technology, 2000, 11, 758-765.	2.6	51

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19	Riga dynamo experiment and its theoretical background. <i>Physics of Plasmas</i> , 2004, 11, 2838-2843.	1.9	51
20	Contactless inductive flow tomography for a model of continuous steel casting. <i>Measurement Science and Technology</i> , 2010, 21, 045402.	2.6	51
21	Magnetohydrodynamic experiments on cosmic magnetic fields. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2008, 88, 930-954.	1.6	49
22	Ambivalent effects of added layers on steady kinematic dynamos in cylindrical geometry: application to the VKS experiment. <i>European Journal of Mechanics, B/Fluids</i> , 2006, 25, 894-908.	2.5	48
23	The Riga Dynamo Experiment. <i>Surveys in Geophysics</i> , 2003, 24, 247-267.	4.6	45
24	Numerical simulation of the Tayler instability in liquid metals. <i>New Journal of Physics</i> , 2013, 15, 043034.	2.9	44
25	Synchronized Helicity Oscillations: A Link Between Planetary Tides and the Solar Cycle?. <i>Solar Physics</i> , 2016, 291, 2197-2212.	2.5	44
26	Local instabilities in magnetized rotational flows: a short-wavelength approach. <i>Journal of Fluid Mechanics</i> , 2014, 760, 591-633.	3.4	43
27	A Model of a Tidally Synchronized Solar Dynamo. <i>Solar Physics</i> , 2019, 294, 1.	2.5	43
28	The Traveling-Wave MRI in Cylindrical Taylor-Couette Flow: Comparing Wavelengths and Speeds in Theory and Experiment. <i>Astrophysical Journal</i> , 2006, 649, L145-L147.	4.5	42
29	Electromagnetic inspection of a two-phase flow of GalSn and argon. <i>Flow Measurement and Instrumentation</i> , 2011, 22, 10-16.	2.0	42
30	The influence of current collectors on Tayler instability and electro-vortex flows in liquid metal batteries. <i>Physics of Fluids</i> , 2015, 27, .	4.0	41
31	How to circumvent the size limitation of liquid metal batteries due to the Tayler instability. <i>Energy Conversion and Management</i> , 2011, 52, 2982-2986.	9.2	39
32	Stability and instability of hydromagnetic Taylor-Couette flows. <i>Physics Reports</i> , 2018, 741, 1-89.	25.6	38
33	Role of Soft-Iron Impellers on the Mode Selection in the von Kármán-Sodium Dynamo Experiment. <i>Physical Review Letters</i> , 2010, 104, 044503.	7.8	37
34	Oscillatory mean-field dynamos with a spherically symmetric, isotropic helical turbulence parameter. <i>Physical Review E</i> , 2003, 67, 027302.	2.1	36
35	Velocity reconstruction in conducting fluids from magnetic field and electric potential measurements. <i>Inverse Problems</i> , 1999, 15, 771-786.	2.0	35
36	The integral equation method for a steady kinematic dynamo problem. <i>Journal of Computational Physics</i> , 2004, 196, 102-125.	3.8	34

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37	Influence of high-permeability discs in an axisymmetric model of the Cadarache dynamo experiment. <i>New Journal of Physics</i> , 2012, 14, 053005.	2.9	34
38	ON THE RELATION OF STANDARD AND HELICAL MAGNETOROTATIONAL INSTABILITY. <i>Astrophysical Journal</i> , 2010, 712, 52-68.	4.5	33
39	Use of electromagnetic induction tomography for monitoring liquid metal/gas flow regimes on a model of an industrial steel caster. <i>Measurement Science and Technology</i> , 2011, 22, 015501.	2.6	33
40	Steady dynamos in finite domains: an integral equation approach. <i>Astronomische Nachrichten</i> , 2000, 321, 65-73.	1.2	32
41	The Tayler instability at low magnetic Prandtl numbers: between chiral symmetry breaking and helicity oscillations. <i>New Journal of Physics</i> , 2015, 17, 113013.	2.9	32
42	A statistical analysis of polarity reversals of the geomagnetic field. <i>Physics of the Earth and Planetary Interiors</i> , 2007, 164, 197-207.	1.9	28
43	Why dynamos are prone to reversals. <i>Earth and Planetary Science Letters</i> , 2006, 243, 828-840.	4.4	27
44	Extending the Range of the Inductionless Magnetorotational Instability. <i>Physical Review Letters</i> , 2013, 111, 061103.	7.8	26
45	Liquid metal batteries - materials selection and fluid dynamics. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 228, 012013.	0.6	26
46	Isospectrality of spherical MHD dynamo operators: Pseudo-hermiticity and a no-go theorem. <i>Journal of Mathematical Physics</i> , 2003, 44, 3097.	1.1	25
47	Electromagnetic induction in non-uniform domains. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2010, 104, 505-529.	1.2	25
48	A UNIFYING PICTURE OF HELICAL AND AZIMUTHAL MAGNETOROTATIONAL INSTABILITY, AND THE UNIVERSAL SIGNIFICANCE OF THE LIU LIMIT. <i>Astrophysical Journal</i> , 2012, 756, 83.	4.5	25
49	Astrophysical and experimental implications from the magnetorotational instability of toroidal fields. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 438, 271-277.	4.4	25
50	Velocity Profile Optimization for the Riga Dynamo Experiment. <i>Fluid Mechanics and Its Applications</i> , 1999, , 31-44.	0.2	25
51	Liquid metal experiments with swirling flow submerged entry nozzle. <i>Ironmaking and Steelmaking</i> , 2012, 39, 1-9.	2.1	23
52	Subcritical transition to turbulence of a precessing flow in a cylindrical vessel. <i>Physics of Fluids</i> , 2015, 27, .	4.0	23
53	Theoretical and numerical approaches to the forward problem and sensitivity calculation of a novel contactless inductive flow tomography (CIFT). <i>Measurement Science and Technology</i> , 2009, 20, 105503.	2.6	22
54	Nonlinear Large Scale Flow in a Precessing Cylinder and Its Ability To Drive Dynamo Action. <i>Physical Review Letters</i> , 2018, 120, 024502.	7.8	22

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55	Towards a precession driven dynamo experiment. <i>Magnetohydrodynamics</i> , 2015, 51, 275-284.	0.3	22
56	Integral equation approach to time-dependent kinematic dynamos in finite domains. <i>Physical Review E</i> , 2004, 70, 056305.	2.1	21
57	Oscillation or rotation: a comparison of two simple reversal models. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2007, 101, 227-248.	1.2	21
58	Shaken and Stirred: When Bond Meets Suessâ€™ de Vries and Gnevyshevâ€™ Ohl. <i>Solar Physics</i> , 2021, 296, 1.	2.5	21
59	DRESDYN – a new facility for MHD experiments with liquid sodium. <i>Magnetohydrodynamics</i> , 2012, 48, 103-114.	0.3	21
60	Third-order spectral branch points in Krein space related setups: $\mathcal{P}\mathcal{T}$ -symmetric matrix toy model, MHD $\hat{L}\pm 2$ -dynamo and extended Squire equation. <i>European Physical Journal D</i> , 2005, 55, 1099-1106.	0.4	19
61	Coupled fluid-flow and magnetic-field simulation of the Riga dynamo experiment. <i>Physics of Plasmas</i> , 2006, 13, 122308.	1.9	19
62	The integral equation approach to kinematic dynamo theory and its application to dynamo experiments in cylindrical geometry. <i>Journal of Computational Physics</i> , 2008, 227, 8130-8144.	3.8	19
63	Triadic resonances in nonlinear simulations of a fluid flow in a precessing cylinder. <i>New Journal of Physics</i> , 2015, 17, 113044.	2.9	19
64	A gradiometric version of contactless inductive flow tomography: theory and first applications. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20150330.	3.4	19
65	On the Synchronizability of Taylerâ€™ Spruit and Babcockâ€™ Leighton Type Dynamos. <i>Solar Physics</i> , 2018, 293, 1.	2.5	17
66	Visualization of the global flow structure in a modified Rayleigh-BÃ©nard setup using contactless inductive flow tomography. <i>Flow Measurement and Instrumentation</i> , 2018, 62, 269-280.	2.0	17
67	A globally diagonalizable $\hat{L}\pm 2$ -dynamo operator, SUSY QM and the Dirac equation. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, F169-F176.	2.1	16
68	Results of a modified PROMISE experiment. <i>Astronomische Nachrichten</i> , 2008, 329, 652-658.	1.2	16
69	Destabilization of rotating flows with positive shear by azimuthal magnetic fields. <i>Physical Review E</i> , 2015, 92, 051001.	2.1	16
70	Transient eddy current flow metering. <i>Measurement Science and Technology</i> , 2015, 26, 105303.	2.6	16
71	Phase coherence and phase jumps in the Schwabe cycle. <i>Astronomische Nachrichten</i> , 2020, 341, 600-615.	1.2	16
72	Kinematic simulation of dynamo action by a hybrid boundary-element/finite-volume method. <i>Magnetohydrodynamics</i> , 2008, 44, 237-252.	0.3	16

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73	The DRESDYN project: liquid metal experiments on dynamo action and magnetorotational instability. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2019, 113, 51-70.	1.2	15
74	Modulated Rotating Waves in the Magnetised Spherical Couette System. <i>Journal of Nonlinear Science</i> , 2019, 29, 2735-2759.	2.1	15
75	Dynamo experiments at the Riga sodium facility. <i>Magnetohydrodynamics</i> , 2002, 38, 5-14.	0.3	15
76	Evolution of a strong electrovortex flow in a cylindrical cell. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	15
77	Some methodological improvements of the contactless inductive flow tomography. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2009, 30, 255-264.	0.6	14
78	Determining role of Krein signature for three-dimensional Arnold tongues of oscillatory dynamos. <i>Physical Review E</i> , 2009, 79, 016205.	2.1	14
79	Chaotic wave dynamics in weakly magnetized spherical Couette flows. <i>Chaos</i> , 2020, 30, 043116.	2.5	14
80	Metal pad roll instability in liquid metal batteries. <i>Magnetohydrodynamics</i> , 2017, 53, 129-140.	0.3	14
81	The MHD $\hat{A}^2$ -Dynamo, $Z^2$ -Graded Pseudo-Hermiticity, Level Crossings and Exceptional Points of Branching Type. <i>European Physical Journal D</i> , 2004, 54, 1075-1089.	0.4	13
82	Generation of axisymmetric modes in cylindrical kinematic mean-field dynamos of VKS type. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2010, 104, 249-271.	1.2	13
83	Paradoxes of magnetorotational instability and their geometrical resolution. <i>Physical Review E</i> , 2011, 84, 036304.	2.1	13
84	Some Recent Developments in the Field of Measuring Techniques and Instrumentation for Liquid Metal Flows. <i>Journal of Nuclear Science and Technology</i> , 2011, 48, 490-498.	1.3	13
85	Contactless Inductive Flow Tomography: Brief History and Recent Developments in Its Application to Continuous Casting. <i>Journal of Sensors</i> , 2014, 2014, 1-9.	1.1	13
86	Magnetohydrodynamic effects in liquid metal batteries. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016, 143, 012024.	0.6	13
87	Thermal convection of liquid metal in the titanium reduction reactor. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 208, 012041.	0.6	13
88	Continuation and stability of rotating waves in the magnetized spherical Couette system: secondary transitions and multistability. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018, 474, 20180281.	2.1	13
89	Subcritical excitation of the current-driven Tayler instability by super-rotation. <i>Physics of Fluids</i> , 2016, 28, .	4.0	13
90	Impact of time-dependent nonaxisymmetric velocity perturbations on dynamo action of von Kármán-like flows. <i>Physical Review E</i> , 2012, 86, 066303.	2.1	12

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91	Transitions in a magnetized quasi-laminar spherical Couette flow. <i>Magnetohydrodynamics</i> , 2017, 53, 393-402.	0.3	12
92	Visualization of the Flow in a Mold of Continuous Casting by Contactless Inductive Flow Tomography and Mutual Inductance Tomography. <i>Steel Research International</i> , 2014, 85, 1266-1273.	1.8	11
93	DIFFUSIVE MAGNETOHYDRODYNAMIC INSTABILITIES BEYOND THE CHANDRASEKHAR THEOREM. <i>Astrophysical Journal</i> , 2015, 811, 84.	4.5	11
94	Inductive System for Reliable Magnesium Level Detection in a Titanium Reduction Reactor. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018, 49, 2089-2096.	2.1	11
95	Experimental investigation of the return flow instability in magnetized spherical Couette flows. <i>Physics of Fluids</i> , 2020, 32, .	4.0	11
96	Zero Net Flux MRI Turbulence in Disks: Sustainance Scheme and Magnetic Prandtl Number Dependence. <i>Astrophysical Journal</i> , 2020, 904, 47.	4.5	11
97	Solar and Anthropogenic Influences on Climate: Regression Analysis and Tentative Predictions. <i>Climate</i> , 2021, 9, 163.	2.8	11
98	Two types of axisymmetric helical magnetorotational instability in rotating flows with positive shear. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	10
99	Four-Frequency Solution in a Magnetohydrodynamic Couette Flow as a Consequence of Azimuthal Symmetry Breaking. <i>Physical Review Letters</i> , 2020, 125, 264501.	7.8	10
100	Numerical and experimental investigation of electro-vortex flow in a cylindrical container. <i>Magnetohydrodynamics</i> , 2020, 56, 27-42.	0.3	10
101	CRITICAL FIELDS AND GROWTH RATES OF THE TAYLER INSTABILITY AS PROBED BY A COLUMNAR GALLIUM EXPERIMENT. <i>Astrophysical Journal</i> , 2012, 755, 181.	4.5	9
102	Standard and Helical Magnetorotational Instability. <i>Acta Applicandae Mathematicae</i> , 2012, 120, 177-198.	1.0	9
103	Experimental and numerical modelling of the fluid flow in the continuous casting of steel. <i>European Physical Journal: Special Topics</i> , 2013, 220, 151-166.	2.6	9
104	Kinematic dynamo action of a precession-driven flow based on the results of water experiments and hydrodynamic simulations.. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2019, 113, 235-255.	1.2	9
105	Numerical and experimental investigation of the contactless inductive flow tomography in the presence of strong static magnetic fields. <i>Magnetohydrodynamics</i> , 2015, 51, 461-472.	0.3	9
106	Schwabe, Gleissberg, Suess-de Vries: Towards a consistent model of planetary synchronization of solar cycles. <i>Magnetohydrodynamics</i> , 2020, 56, 269-280.	0.3	9
107	Cylindrical anisotropic $\pm 2$ dynamos. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2007, 101, 389-404.	1.2	8
108	Use of Cold Liquid Metal Models for Investigations of the Fluid Flow in the Continuous Casting Process. <i>Steel Research International</i> , 2014, 85, 1283-1290.	1.8	8

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109	Immersed transient eddy current flow metering: a calibration-free velocity measurement technique for liquid metals. <i>Measurement Science and Technology</i> , 2017, 28, 105301.	2.6	8
110	Numerical simulations of convection in the titanium reduction reactor. <i>Journal of Physics: Conference Series</i> , 2017, 891, 012076.	0.4	8
111	Magnetorotational instability in Taylor-Couette flows between cylinders with finite electrical conductivity. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2018, 112, 301-320.	1.2	8
112	Modulated rotating waves and triadic resonances in spherical fluid systems: The case of magnetized spherical Couette flow. <i>Physics of Fluids</i> , 2021, 33, 044105.	4.0	8
113	The Tayler instability at low magnetic Prandtl numbers: chiral symmetry breaking and synchronizable helicity oscillations. <i>Magnetohydrodynamics</i> , 2017, 53, 169-178.	0.3	8
114	Can we look inside a dynamo?. <i>Astronomische Nachrichten</i> , 2000, 321, 235-247.	1.2	7
115	A toy model for inverse dynamo theory. <i>Physics of the Earth and Planetary Interiors</i> , 2001, 128, 109-124.	1.9	7
116	Linking dissipation-induced instabilities with nonmodal growth: The case of helical magnetorotational instability. <i>Physical Review E</i> , 2016, 94, 051203.	2.1	7
117	Self-excitation in a helical liquid metal flow: the Riga dynamo experiments. <i>Journal of Plasma Physics</i> , 2018, 84, .	2.1	7
118	Generating a tide-like flow in a cylindrical vessel by electromagnetic forcing. <i>Physics of Fluids</i> , 2020, 32, .	4.0	7
119	Riga Dynamo Experiment. , 2001, , 9-16.		7
120	Prograde and retrograde precession of a fluid-filled cylinder. <i>New Journal of Physics</i> , 0, , .	2.9	7
121	Coexisting stochastic and coherence resonance in a mean-field dynamo model for Earth's magnetic field reversals. <i>European Physical Journal B</i> , 2008, 65, 547-554.	1.5	6
122	Numerical simulations of liquid metal experiments on cosmic magnetic fields. <i>Theoretical and Computational Fluid Dynamics</i> , 2009, 23, 405-429.	2.2	6
123	Energy oscillations and a possible route to chaos in a modified Riga dynamo. <i>Astronomische Nachrichten</i> , 2011, 332, 4-10.	1.2	6
124	Flow Visualization by Means of Contactless Inductive Flow Tomography in the Presence of a Magnetic Brake. <i>Journal for Manufacturing Science and Production</i> , 2015, 15, 41-48.	0.1	6
125	Azimuthal magnetorotational instability with super-rotation. <i>Journal of Plasma Physics</i> , 2018, 84, .	2.1	6
126	Singularity consideration in the integral equations for contactless inductive flow tomography. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , 2018, 37, 1366-1375.	0.9	6



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127	Ekman boundary layers in a fluid filled precessing cylinder. <i>AIP Advances</i> , 2021, 11, 035023.	1.3	6
128	Instability of precession driven Kelvin modes: Evidence of a detuning effect. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	6
129	Ultrasound Doppler flow measurements in a liquid column under the influence of a strong axial current. <i>Magnetohydrodynamics</i> , 2015, 51, 249-256.	0.3	6
130	Laboratory Investigation of Tomography-Controlled Continuous Steel Casting. <i>Sensors</i> , 2022, 22, 2195.	3.8	6
131	From helical to standard magnetorotational instability: Predictions for upcoming liquid sodium experiments. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	6
132	Inferring basic parameters of the geodynamo from sequences of polarity reversals. <i>Inverse Problems</i> , 2009, 25, 065011.	2.0	5
133	WKB thresholds of standard, helical, and azimuthal magnetorotational instability. <i>Proceedings of the International Astronomical Union</i> , 2012, 8, 233-234.	0.0	5
134	Quasi-two-dimensional nonlinear evolution of helical magnetorotational instability in a magnetized Taylor-Couette flow. <i>New Journal of Physics</i> , 2018, 20, 013012.	2.9	5
135	Long term time dependent frequency analysis of chaotic waves in the weakly magnetized spherical Couette system. <i>Physica D: Nonlinear Phenomena</i> , 2021, 418, 132836.	2.8	5
136	Numerical simulations for the DRESHDYN precession dynamo. <i>Magnetohydrodynamics</i> , 2015, 51, 293-302.	0.3	5
137	MRI in Taylor-Dean flows. <i>AIP Conference Proceedings</i> , 2004, , .	0.4	4
138	A Contactless Inductive Velocity Reconstruction Method for Metallic and Semiconducting Melts. <i>Materials and Manufacturing Processes</i> , 2004, 19, 651-663.	4.7	4
139	Magnetic material in mean-field dynamos driven by small scale helical flows. <i>New Journal of Physics</i> , 2014, 16, 073034.	2.9	4
140	Instabilities of rotational flows in azimuthal magnetic fields of arbitrary radial dependence. <i>Fluid Dynamics Research</i> , 2014, 46, 031403.	1.3	4
141	Noise reduction of ultrasonic Doppler velocimetry in liquid metal experiments with high magnetic fields. <i>Flow Measurement and Instrumentation</i> , 2016, 48, 74-80.	2.0	4
142	Convective, absolute and global azimuthal magnetorotational instabilities. <i>Journal of Fluid Mechanics</i> , 2021, 922, .	3.4	4
143	Nonmodel analysis of helical and azimuthal magnetorotational instabilities. <i>Magnetohydrodynamics</i> , 2017, 53, 107-118.	0.3	4
144	Contactless Inductive Flow Tomography for Real-Time Control of Electromagnetic Actuators in Metal Casting. <i>Sensors</i> , 2022, 22, 4155.	3.8	4

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145	Enhancing robustness and applicability of contactless inductive flow tomography. , 2015, , .		3
146	Increasing electromagnetic compatibility of Contactless Inductive Flow Tomography. , 2015, , .		3
147	Contactless inductive flow tomography: basic principles and first applications in the experimental modelling of continuous casting. IOP Conference Series: Materials Science and Engineering, 2016, 143, 012023.	0.6	3
148	Magnetic field dynamos and magnetically triggered flow instabilities. IOP Conference Series: Materials Science and Engineering, 2017, 228, 012002.	0.6	3
149	Real-time control of the mould flow in a model of continuous casting in frame of the TOMOCON project. IOP Conference Series: Materials Science and Engineering, 0, 424, 012003.	0.6	3
150	Dynamo Experiments. Fluid Mechanics and Its Applications, 2007, , 37-54.	0.2	3
151	Measurement of the spatio-temporal distribution of harmonic and transient eddy currents in a liquid metal. Measurement Science and Technology, 2008, 19, 045704.	2.6	2
152	Integral equations in MHD: theory and application. Geophysical and Astrophysical Fluid Dynamics, 2013, 107, 58-72.	1.2	2
153	Spectral properties of oscillatory and non-oscillatory $\hat{\pm}2$ -dynamos. Geophysical and Astrophysical Fluid Dynamics, 2013, 107, 45-57.	1.2	2
154	On a spectral problem in magnetohydrodynamics and its relevance for the geodynamo. GAMM Mitteilungen, 2018, 41, e201800012.	5.5	2
155	Experimental Validation of an Inductive System for Magnesium Level Detection in a Titanium Reduction Reactor. Sensors, 2020, 20, 6798.	3.8	2
156	Parametric instability in periodically perturbed dynamos. Physical Review Fluids, 2017, 2, .	2.5	2
157	Liquid metal experiments on the magnetorotational instability. Magnetohydrodynamics, 2009, 45, 135-144.	0.3	2
158	Conductivity influence on interfacial waves in liquid metal batteries and related two-layer systems. Magnetohydrodynamics, 2020, 56, 237-246.	0.3	2
159	Some Recent Developments in the Field of Measuring Techniques and Instrumentation for Liquid Metal Flows. Journal of Nuclear Science and Technology, 2011, 48, 490-498.	1.3	2
160	Transient Eddy Current Flow Metering: a calibration-free velocity measurement technique for liquid metals. IOP Conference Series: Materials Science and Engineering, 0, 424, 012008.	0.6	2
161	Contactless inductive flow tomography for a Rayleigh-Bénard setup with aspect ratio 0.5. Magnetohydrodynamics, 2020, 56, 195-202.	0.3	2
162	Flow monitoring for continuous steel casting using Contactless Inductive Flow Tomography (CIFT). IFAC-PapersOnLine, 2020, 53, 11477-11482.	0.9	2

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163	Dynamic transitions of the magnetized spherical Couette flow between its base state and the return flow instability. IOP Conference Series: Materials Science and Engineering, 2022, 1223, 012004.	0.6	2
164	Mode Conversion and Period Doubling in a Liquid Rubidium Alfvén-Wave Experiment with Coinciding Sound and Alfvén Speeds. Physical Review Letters, 2021, 127, 275001.	7.8	2
165	Laboratory astrophysics as exemplified by the Riga dynamo experiment. AIP Conference Proceedings, 2004, , .	0.4	1
166	Velocity Measurements in Metallic Melts. , 2005, , 49.		1
167	Inverse problems in magnetohydrodynamics: theoretical and experimental aspects. Inverse Problems in Science and Engineering, 2006, 14, 411-422.	1.2	1
168	Recent progress on contactless inductive flow tomography. Proceedings in Applied Mathematics and Mechanics, 2009, 9, 523-524.	0.2	1
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