Marian Lazar

List of Publications by Year in Descending Order

Source: https://exaly.com/author-pdf/6467203/marian-lazar-publications-by-year.pdf
Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

130 papers	2,457 citations	25 h-index	43 g-index
147 ext. papers	2,779 ext. citations	3.1 avg, IF	5.74 L-index

#	Paper	IF	Citations
130	Toward a Realistic Evaluation of Transport Coefficients in Non-equilibrium Space Plasmas. *Astrophysical Journal*, **2022**, 927, 159	4.7	0
129	Mixing the Solar Wind Proton and Electron Scales. Theory and 2D-PIC Simulations of Firehose Instability. *Astrophysical Journal*, **2022**, 930, 158	4.7	0
128	Suprathermal Populations and Their Effects in Space Plasmas: Kappa vs. Maxwellian. *Astrophysics and Space Science Library*, **2021**, 15-38	0.3	
127	Kappa Distributions: Concluding Remarks and Perspectives. *Astrophysics and Space Science Library*, **2021**, 321-326	0.3	
126	From Standard Kappa to a Regularized Kappa, or Even More Generalized Kappa â€œkookbookâ€ *Astrophysics and Space Science Library*, **2021**, 307-318	0.3	
125	Proton-Alpha Drift Instability of Electromagnetic Ion-Cyclotron Modes: Quasilinear Development **2021**, 3, 1175-1189	2.1	
124	Advanced Interpretation of Waves and Instabilities in Space Plasmas. *Astrophysics and Space Science Library*, **2021**, 185-218	0.3	0
123	Kappa Distribution Function: From Empirical to Physical Concepts. *Astrophysics and Space Science Library*, **2021**, 107-123	0.3	
122	Kappa Distributions and Entropy. *Astrophysics and Space Science Library*, **2021**, 299-306	0.3	
121	Advanced Numerical Tools for Studying Waves and Instabilities in Kappa Distributed Plasmas. *Astrophysics and Space Science Library*, **2021**, 163-184	0.3	
120	Regularized Kappa Distributions: Linear Dispersion and Stability Theory. *Astrophysics and Space Science Library*, **2021**, 279-297	0.3	
119	Toward a general quasi-linear approach for the instabilities of bi-Kappa plasmas. Whistler instability. *Plasma Physics and Controlled Fusion*, **2021**, 63, 025011	2	7
118	On the interplay of solar wind proton and electron instabilities: linear and quasi-linear approaches. *Monthly Notices of the Royal Astronomical Society*, **2021**, 503, 3134-3144	4.3	5
117	General dispersion properties of magnetized plasmas with drifting bi-Kappa distributions. DIS-K: Dispersion Solver for Kappa Plasmas. *Journal of Plasma Physics*, **2021**, 87,	2.7	4
116	Electromagnetic ion cyclotron instability stimulated by the suprathermal ions in space plasmas: A quasi-linear approach. *Physics of Plasmas*, **2021**, 28, 022103	2.1	6
115	A New Low-beta Regime for Unstable Proton Firehose Modes in Bi-kappa-distributed Plasmas. *Astrophysical Journal*, **2021**, 918, 37	4.7	2
114	Solar Wind Plasma Particles Organized by the Flow Speed. *Solar Physics*, **2020**, 295, 1	2.6	4

113	A firehose-like aperiodic instability of the counter-beaming electron plasmas. *Plasma Physics and Controlled Fusion*, **2020**,	2	1
112	Particle-in-cell Simulations of the Parallel Proton Firehose Instability Influenced by the Electron Temperature Anisotropy in Solar Wind Conditions. *Astrophysical Journal*, **2020**, 893, 130	4.7	5
111	Electromagnetic instabilities of low-beta alpha/proton beams in space plasmas. *Astrophysics and Space Science*, **2020**, 365, 1	1.6	1
110	Whistler instabilities from the interplay of electron anisotropies in space plasmas: a quasi-linear approach. *Monthly Notices of the Royal Astronomical Society*, **2020**, 492, 3529-3539	4.3	12
109	Generalized anisotropic Ecookbook: 2D fitting of Ulysses electron data. *Monthly Notices of the Royal Astronomical Society*, **2020**, 501, 606-613	4.3	5
108	Electromagnetic Ionâ□bn Instabilities in Space Plasmas: Effects of Suprathermal Populations. *Astrophysical Journal*, **2020**, 899, 20	4.7	9
107	Alternative High-plasma Beta Regimes of Electron Heat-flux Instabilities in the Solar Wind. *Astrophysical Journal Letters*, **2020**, 900, L25	7.9	24
106	Particle-in-cell Simulation of Whistler Heat-flux Instabilities in the Solar Wind: Heat-flux Regulation and Electron Halo Formation. *Astrophysical Journal Letters*, **2020**, 903, L23	7.9	17
105	Characteristics of solar wind suprathermal halo electrons. *Astronomy and Astrophysics*, **2020**, 642, A130	5.1	6
104	The Ecookbook: a novel generalizing approach to unify Elike distributions for plasma particle modelling. *Monthly Notices of the Royal Astronomical Society*, **2020**, 497, 1738-1756	4.3	7
103	Ionospheric losses of Venus in the solar wind. *Advances in Space Research*, **2020**, 65, 129-137	2.4	6
102	Toward a realistic macroscopic parametrization of space plasmas with regularized Edistributions. *Astronomy and Astrophysics*, **2020**, 634, A20	5.1	16
101	Linear dispersion theory of parallel electromagnetic modes for regularized Kappa-distributions. *Physics of Plasmas*, **2020**, 27, 042110	2.1	8
100	Quasilinear approach of the cumulative whistler instability in fast solar wind: Constraints of electron temperature anisotropy. *Astronomy and Astrophysics*, **2019**, 627, A76	5.1	11
99	Ion escape from the upper ionosphere of Titan triggered by the solar wind. *Astrophysics and Space Science*, **2019**, 364, 1	1.6	0
98	Quasi-linear approach of the whistler heat-flux instability in the solar wind. *Monthly Notices of the Royal Astronomical Society*, **2019**, 486, 4498-4507	4.3	21
97	Particle-in-cell Simulations of Firehose Instability Driven by Bi-Kappa Electrons. *Astrophysical Journal Letters*, **2019**, 873, L20	7.9	24
96	The Interplay of the Solar Wind Core and Suprathermal Electrons: A Quasilinear Approach for Firehose Instability. *Astrophysical Journal*, **2019**, 871, 237	4.7	14

95	Moments of the Anisotropic Regularized κ-distributions. *Astrophysical Journal*, **2019**, 880, 118	4.7	15
94	On the Applicability of κ-distributions. *Astrophysical Journal*, **2019**, 881, 93	4.7	15
93	Whistler instability stimulated by the suprathermal electrons present in space plasmas. *Astrophysics and Space Science*, **2019**, 364, 1	1.6	16
92	Particle-in-cell Simulations of the Whistler Heat-flux Instability in Solar Wind Conditions. *Astrophysical Journal Letters*, **2019**, 882,	7.9	15
91	Firehose instabilities triggered by the solar wind suprathermal electrons. *Monthly Notices of the Royal Astronomical Society*, **2019**, 483, 5642-5648	4.3	23
90	Temperature anisotropy instabilities stimulated by the interplay of the core and halo electrons in space plasmas. *Physics of Plasmas*, **2018**, 25, 022902	2.1	17
89	Stimulated Mirror Instability From the Interplay of Anisotropic Protons and Electrons, and their Suprathermal Populations. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 1754	2.6	12
88	Solar wind temperature anisotropy constraints from streaming instabilities. *Astronomy and Astrophysics*, **2018**, 613, A23	5.1	3
87	Beaming electromagnetic (or heat-flux) instabilities from the interplay with the electron temperature anisotropies. *Physics of Plasmas*, **2018**, 25, 082105	2.1	23
86	On the effects of suprathermal populations in dusty plasmas: The case of dust-ion-acoustic waves. *Planetary and Space Science*, **2018**, 156, 130-138	2	11
85	Electromagnetic Electron Cyclotron Instability in the Solar Wind. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 6-19	2.6	22
84	Quasi-electrostatic twisted waves in Lorentzian dusty plasmas. *Planetary and Space Science*, **2018**, 156, 139-146	2	7
83	Suprathermal Spontaneous Emissions in κ-distributed Plasmas. *Astrophysical Journal Letters*, **2018**, 868, L25	7.9	9
82	Entropy of plasmas described with regularized κ-distributions. *Physical Review E*, **2018**, 98,	2.4	15
81	Modified κ-distribution of Solar Wind Electrons and Steady-state Langmuir Turbulence. *Astrophysical Journal*, **2018**, 868, 131	4.7	15
80	Clarifying the solar wind heat flux instabilities. *Monthly Notices of the Royal Astronomical Society*, **2018**, 480, 310-319	4.3	38
79	Low frequency electromagnetic fluctuations in Kappa magnetized plasmas. *Plasma Physics and Controlled Fusion*, **2018**, 60, 075010	2	7
78	Uncertainties in the heliosheath ion temperatures. *Annales Geophysicae*, **2018**, 36, 37-46	2	5

77	Electromagnetic cyclotron instabilities in bi-Kappa distributed plasmas: A quasilinear approach. *Physics of Plasmas*, **2017**, 24, 042110	2.1	13
76	Dual Maxwellian-Kappa modeling of the solar wind electrons: new clues on the temperature of Kappa populations. *Astronomy and Astrophysics*, **2017**, 602, A44	5.1	47
75	Towards realistic characterization of the solar wind suprathermal populations and their effects. *Physics of Plasmas*, **2017**, 24, 034501	2.1	4
74	Kinetic study of electrostatic twisted waves instability in nonthermal dusty plasmas. *Physics of Plasmas*, **2017**, 24, 033701	2.1	15
73	Spontaneous emission of electromagnetic fluctuations in Kappa magnetized plasmas. *Plasma Physics and Controlled Fusion*, **2017**, 59, 125003	2	24
72	Shaping the solar wind temperature anisotropy by the interplay of electron and proton instabilities. *Astrophysics and Space Science*, **2017**, 362, 1	1.6	23
71	Firehose constraints of the bi-Kappa-distributed electrons: a zero-order approach for the suprathermal electrons in the solar wind. *Monthly Notices of the Royal Astronomical Society*, **2017**, 464, 564-571	4.3	33
70	Electron heat flux instability. *Monthly Notices of the Royal Astronomical Society*, **2017**, 465, 1672-1681	4.3	25
69	Cyclotron Electromagnetic Instabilities in a Laboratory Dipole Magnetospheric Plasma with bi-Kappa Distributions. *Plasma and Fusion Research*, **2017**, 12, 1403047-1403047	0.5	1
68	Regularized □distributions with non-diverging moments. *Europhysics Letters*, **2017**, 120, 50002	1.6	38
67	Kinetic models for space plasmas: Recent progress for the solar wind and the Earthâ□ magnetosphere **2016**,		1
66	Effects of suprathermal electrons on the proton temperature anisotropy in space plasmas: Electromagnetic ion-cyclotron instability. *Astrophysics and Space Science*, **2016**, 361, 1	1.6	15
65	MIXING THE SOLAR WIND PROTON AND ELECTRON SCALES: EFFECTS OF ELECTRON TEMPERATURE ANISOTROPY ON THE OBLIQUE PROTON FIREHOSE INSTABILITY. *Astrophysical Journal*, **2016**, 832, 64	4.7	16
64	The interplay of the solar wind proton core and halo populations: EMIC instability. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 6031-6047	2.6	23
63	On the interpretation and applicability of□distributions. *Astronomy and Astrophysics*, **2016**, 589, A39	5.1	73
62	The Electron Temperature and Anisotropy in the Solar Wind. Comparison of the Core and Halo Populations. *Solar Physics*, **2016**, 291, 2165-2179	2.6	60
61	Constraints for the aperiodic O-mode streaming instability. *Physics of Plasmas*, **2015**, 22, 012102	2.1	3
60	EFFECTS OF ELECTRONS ON THE ELECTROMAGNETIC ION CYCLOTRON INSTABILITY: SOLAR WIND IMPLICATIONS. *Astrophysical Journal*, **2015**, 814, 34	4.7	17

59	Quasilinear saturation of the aperiodic ordinary mode streaming instability. *Physics of Plasmas*, **2015**, 22, 092301	2.1	9
58	Nonlinear evolution of the electromagnetic electron-cyclotron instability in bi-Kappa distributed plasma. *Physics of Plasmas*, **2015**, 22, 062109	2.1	10
57	Destabilizing effects of the suprathermal populations in the solar wind. *Astronomy and Astrophysics* , **2015**, 582, A124	5.1	64
56	The instability condition of the aperiodic ordinary mode for new scalings of the counterstreaming parameters. *Physics of Plasmas*, **2015**, 22, 022129	2.1	7
55	Towards realistic parametrization of the kinetic anisotropy and the resulting instabilities in space plasmas. Electromagnetic electronâcyclotron instability in the solar wind. *Monthly Notices of the Royal Astronomical Society*, **2015**, 446, 3022-3033	4.3	32
54	EFFECTS OF ELECTRONS ON THE SOLAR WIND PROTON TEMPERATURE ANISOTROPY. *Astrophysical Journal*, **2014**, 781, 49	4.7	25
53	Instability of the parallel electromagnetic modes in Kappa distributed plasmas âI. Electromagnetic ionâcyclotron modes. *Monthly Notices of the Royal Astronomical Society*, **2014**, 437, 641-648	4.3	26
52	Solar Wind Electron Strahls Associated with a High-Latitude CME: Ulysses Observations. *Solar Physics*, **2014**, 289, 4239-4266	2.6	5
51	The interplay of Kappa and core populations in the solar wind: Electromagnetic electron cyclotron instability. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 9395-9406	2.6	19
50	The Electron Firehose and Ordinary-Mode Instabilities in Space Plasmas. *Solar Physics*, **2014**, 289, 369-378	2.6	28
49	Towards a complete parametrization of the ordinary-mode electromagnetic instability in counterstreaming plasmas. I. Minimizing ion dynamics. *Physics of Plasmas*, **2013**, 20, 012103	2.1	18
48	Spontaneous electromagnetic fluctuations in unmagnetized plasmas. II. Relativistic form factors of aperiodic thermal modes. *Physics of Plasmas*, **2013**, 20, 052113	2.1	31
47	Electromagnetic electron whistler-cyclotron instability in bi-Kappa distributed plasmas. *Astronomy and Astrophysics*, **2013**, 554, A64	5.1	21
46	On the existence of Weibel instability in a magnetized plasma. II. Perpendicular wave propagation: The ordinary mode. *Physics of Plasmas*, **2012**, 19, 072116	2.1	21
45	Spontaneous electromagnetic fluctuations in unmagnetized plasmas. III. Generalized Kappa distributions. *Physics of Plasmas*, **2012**, 19, 122108	2.1	39
44	Suprathermal Particle Populations in the Solar Wind and Corona **2012**,		7
43	The electromagnetic ion-cyclotron instability in bi-Kappa distributed plasmas. *Astronomy and Astrophysics*, **2012**, 547, A94	5.1	25
42	Modeling Space Plasma Dynamics with Anisotropic Kappa Distributions. *Thirty Years of Astronomical Discovery With UKIRT*, **2012**, 97-107	0.3	24

41	Spontaneously growing, weakly propagating, transverse fluctuations in anisotropic magnetized thermal plasmas. *Physics of Plasmas*, **2011**, 18, 012103	2.1	17
40	Modified temperature-anisotropy instability thresholds in the solar wind. *Physical Review Letters*, **2011**, 107, 201102	7.4	18
39	Proton firehose instability in bi-Kappa distributed plasmas. *Astronomy and Astrophysics*, **2011**, 534, A116	5.1	37
38	Instability of the parallel electromagnetic modes in Kappa distributed plasmas - I. Electron whistler-cyclotron modes. *Monthly Notices of the Royal Astronomical Society*, **2011**, 410, 663-670	4.3	34
37	Electron streams formation and secondary two stream instability onset in the post-saturation regime of the classical Weibel instability. *Physics of Plasmas*, **2011**, 18, 052104	2.1	9
36	Evolution of the Electron Distribution Function in the Whistler Wave Turbulence of the Solar Wind. *Solar Physics*, **2011**, 269, 421-438	2.6	44
35	Counterstreaming magnetized plasmas with kappa distributions ⍰ II. Perpendicular wave propagation. *Monthly Notices of the Royal Astronomical Society*, **2010**, 401, 362-370	4.3	21
34	THE INFLUENCE OF DISSIPATION RANGE POWER SPECTRA AND PLASMA-WAVE POLARIZATION ON COSMIC-RAY SCATTERING MEAN FREE PATH. *Astrophysical Journal*, **2010**, 719, 1497-1502	4.7	12
33	Cosmological magnetic field seeds produced by the Weibel instabilities. *Proceedings of the International Astronomical Union*, **2010**, 6, 387-388	0.1	
32	Resonant Weibel instability in counterstreaming plasmas with temperature anisotropies. *Journal of Plasma Physics*, **2010**, 76, 49-56	2.7	7
31	Nonresonant electromagnetic instabilities in space plasmas: interplay of Weibel and firehose instabilities **2010**,		2
30	Is the Weibel instability enhanced by the suprathermal populations or not?. *Physics of Plasmas*, **2010**, 17, 062112	2.1	18
29	Kappa Distributions: Theory and Applications in Space Plasmas. *Solar Physics*, **2010**, 267, 153-174	2.6	424
28	Self-excited plasmon polaritons in counterstreaming quantum plasmas. *Physics of Plasmas*, **2009**, 16, 122106	2.1	5
27	COSMOLOGICAL EFFECTS OF WEIBEL-TYPE INSTABILITIES. *Astrophysical Journal*, **2009**, 693, 1133-1141	4.7	65
26	Limits for the Firehose Instability in Space Plasmas. *Solar Physics*, **2009**, 258, 119-128	2.6	24
25	Firehose instability in space plasmas with bi-kappa distributions. *Astronomy and Astrophysics*, **2009**, 494, 311-315	5.1	46
24	On the existence of Weibel instability in a magnetized plasma. I. Parallel wave propagation. *Physics of Plasmas*, **2009**, 16, 012106	2.1	23

23	A comparative study of the filamentation and Weibel instabilities and their cumulative effect. II. Weakly relativistic beams. *Journal of Plasma Physics*, **2009**, 75, 529-543	2.7	7
22	A comparative study of the filamentation and Weibel instabilities and their cumulative effect. I. Non-relativistic theory. *Journal of Plasma Physics*, **2009**, 75, 19-33	2.7	14
21	Self-excited surface plasmon-polaritons at the interface of counterstreaming plasmas. *Physics of Plasmas*, **2009**, 16, 052102	2.1	4
20	Macroscopic description for the quantum Weibel instability. *Physical Review E*, **2008**, 77, 046404	2.4	19
19	Finite amplitude envelope surface solitons. *Physics of Plasmas*, **2008**, 15, 042301	2.1	5
18	Counterstreaming magnetized plasmas with kappa distributions â. Parallel wave propagation. *Monthly Notices of the Royal Astronomical Society*, **2008**, 390, 168-174	4.3	56
17	Revision of âcumulative effect of the filamentation and Weibel instabilities in counterstreaming thermal plasmasâ[Phys. Plasmas 13, 102107 (2006)]. *Physics of Plasmas*, **2008**, 15, 014501	2.1	10
16	Fast magnetization in counterstreaming plasmas with temperature anisotropies. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2008**, 372, 2446-2449	2.3	11
15	Cumulative effect of the Weibel-type instabilities in symmetric counterstreaming plasmas with kappa anisotropies. *Physics of Plasmas*, **2008**, 15, 042103	2.1	43
14	Surface waves on a quantum plasma half-space. *Physics of Plasmas*, **2007**, 14, 124501	2.1	65
13	Relativistic corrections to the nonlinear plasma permittivity: II. Coupling of longitudinal and transverse waves. *Plasma Physics and Controlled Fusion*, **2007**, 49, 1661-1671	2	1
12	Nonlinear response of a relativistic plasma to intense fields: Generation of strong quasistatic magnetic fields. *Physics of Plasmas*, **2006**, 13, 102302	2.1	3
11	Cumulative effect of the filamentation and Weibel instabilities in counterstreaming thermal plasmas. *Physics of Plasmas*, **2006**, 13, 102107	2.1	34
10	Relativistic kinetic dispersion theory of linear parallel waves in magnetized plasmas with isotropic thermal distributions. *New Journal of Physics*, **2006**, 8, 66-66	2.9	10
9	Covariant kinetic dispersion theory of linear transverse waves parallel propagating in magnetized plasmas with thermal anisotropy. *Physics of Plasmas*, **2006**, 13, 012110	2.1	9
8	Covariant kinetic theory for nonlinear plasma waves interaction. *Journal of Plasma Physics*, **2006**, 72, 711	2.7	1
7	Relativistic corrections to the nonlinear plasma permittivity: I. A covariant kinetic theory for longitudinal plasma wave interactions. *Plasma Physics and Controlled Fusion*, **2006**, 48, 911-926	2	2
6	Relativistic Kinetic Theory of Waves in Equilibrium Magnetized Pair Plasma. General Dispersion Relations. *Physica Scripta*, **2003**, 68, 146-154	2.6	4

5	Kinetic theory of nonlinear waves interaction in relativistic plasmas. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2003**, 313, 418-423	2.3	8
4	Relativistic kinetic theory of electromagnetic waves in equilibrium magnetized plasma. General dispersion equations. *Canadian Journal of Physics*, **2003**, 81, 1377-1387	1.1	10
3	Linear damping and energy dissipation of shear Alfvn waves in the interstellar medium. *Astronomy and Astrophysics*, **2003**, 410, 415-424	5.1	8
2	Piezoceramics for acousto-optics applications **1998**, 3581, 271		
1	Transport coefficients enhanced by suprathermal particles in nonequilibrium heliospheric plasmas. *Astronomy and Astrophysics*,	5.1	1