

Frank Verheest

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/861459/publications.pdf>

Version: 2024-02-01

134
papers

4,640
citations

94269

37
h-index

110170

64
g-index

134
all docs

134
docs citations

134
times ranked

807
citing authors

#	ARTICLE	IF	CITATIONS
1	Comment on "Shock waves in ultra-relativistic degenerate astrophysical e-p-i plasmas" [Astrophys. Space Sci. (2021) 366:121]. Astrophysics and Space Science, 2022, 367, .	0.5	0
2	Fast and slow beam mode ion-acoustic solitons in plasmas with counterstreaming cold protons. Physica Scripta, 2021, 96, 045603.	1.2	3
3	Comment on "Phase plane analysis of small amplitude electron-acoustic supernonlinear and nonlinear waves in magnetized plasmas" (2020 Physica Scripta 95 105604). Physica Scripta, 2021, 96, 107001.	1.2	0
4	Comment on "Dust-Ion-Acoustic Waves in unmagnetized 4-component plasma" [Adv. Space Res. 67 (2021) 1244-1253]. Advances in Space Research, 2021, 68, 2361-2366.	1.2	0
5	Stopbands in fast ion-acoustic soliton propagation revisited. Physics of Plasmas, 2020, 27, .	0.7	4
6	Overtaking collisions of double layers and solitons: Tripolar structures and dynamical polarity switches. Physics of Plasmas, 2020, 27, .	0.7	2
7	Electrostatic flat-top solitons near double layers and triple root structures in multispecies plasmas: How realistic are they?. Physics of Plasmas, 2020, 27, 062306.	0.7	4
8	Collisions of acoustic solitons and their electric fields in plasmas at critical compositions. Journal of Plasma Physics, 2019, 85, .	0.7	16
9	On a semiclassical model for ion-acoustic solitons in ultrarelativistic pair plasmas and its classical counterpart. Physics of Plasmas, 2019, 26, .	0.7	1
10	Comment on "Electron acoustic super solitary waves in a magnetized plasma" J. Plasma Phys. 84, 905840406 (2018). Journal of Plasma Physics, 2019, 85, .	0.7	1
11	The effects of finite mass, adiabaticity, and isothermality in nonlinear plasma wave studies. Physics of Plasmas, 2018, 25, 032303.	0.7	4
12	Collision properties of overtaking supersolitons with small amplitudes. Physics of Plasmas, 2018, 25, .	0.7	18
13	Nonlinear solitary waves (oscillitons) in dusty magnetized pair plasmas. Physics of Plasmas, 2018, 25, .	0.7	5
14	Oblique propagation of solitary electrostatic waves in magnetized plasmas with cold ions and nonthermal electrons. Physics of Plasmas, 2017, 24, .	0.7	11
15	Small-amplitude supersolitons near supercritical plasma compositions. Journal of Plasma Physics, 2017, 83, .	0.7	9
16	Electrostatic triple root structures: Connections to supersolitons, double layers, and acoustic speed solitons in nonthermal plasmas with negative and positive dust. Physics of Plasmas, 2017, 24, .	0.7	7
17	Asymptotic analysis of solitons and double layers at the acoustic speed. Journal of Plasma Physics, 2017, 83, .	0.7	5
18	A small-amplitude study of solitons near critical plasma compositions. Journal of Plasma Physics, 2016, 82, .	0.7	6

#	ARTICLE	IF	CITATIONS
19	Stringent limitations on reductive perturbation studies of nonplanar acoustic solitons in plasmas. <i>Physics of Plasmas</i> , 2016, 23, 060801.	0.7	6
20	Modified Kortewegâ€“de Vries solitons at supercritical densities in two-electron temperature plasmas. <i>Journal of Plasma Physics</i> , 2016, 82, .	0.7	32
21	Perpendicular propagation of electromagnetic solitons in magnetized thermal pair plasmas. <i>Physica Scripta</i> , 2016, 91, 025603.	1.2	1
22	Critical densities for Kortewegâ€“de Vries-like acoustic solitons in multi-ion plasmas. <i>Journal of Plasma Physics</i> , 2015, 81, .	0.7	8
23	Electrostatic supersolitons and double layers at the acoustic speed. <i>Physics of Plasmas</i> , 2015, 22, .	0.7	30
24	Symmetries and charge neutrality of electromagnetic solitons in perfect pair plasmas. <i>Physica Scripta</i> , 2015, 90, 068002.	1.2	5
25	Effects of hot electron inertia on electron-acoustic solitons and double layers. <i>Physics of Plasmas</i> , 2015, 22, .	0.7	14
26	Electrostatic nonlinear supersolitons in dusty plasmas. <i>Journal of Plasma Physics</i> , 2014, 80, 787-793.	0.7	9
27	Stopbands in the existence domains of acoustic solitons. <i>Physics of Plasmas</i> , 2014, 21, 102301.	0.7	12
28	No electrostatic supersolitons in two-component plasmas. <i>Physics of Plasmas</i> , 2014, 21, .	0.7	38
29	A Schamel equation for ion acoustic waves in superthermal plasmas. <i>Physics of Plasmas</i> , 2014, 21, .	0.7	55
30	Comment on â€“Propagation of solitary waves and shock wavelength in the pair plasma (<i>J. Plasma Phys.</i>) Tj ETQq0 0.0 rgBT /Qverlock 10	0.7	0
31	Dust-acoustic shocks in strongly coupled dusty plasmas. <i>Physical Review E</i> , 2014, 89, 043103.	0.8	18
32	Assumptions and ambiguities in nonplanar acoustic soliton theory. <i>Physics of Plasmas</i> , 2014, 21, 022307.	0.7	8
33	Re-examining the Cairns-Tsallis model for ion acoustic solitons. <i>Physical Review E</i> , 2013, 88, 023103.	0.8	60
34	Ion-acoustic supersolitons in plasmas with two-temperature electrons: Boltzmann and kappa distributions. <i>Physics of Plasmas</i> , 2013, 20, .	0.7	66
35	Dust-ion-acoustic supersolitons in dusty plasmas with nonthermal electrons. <i>Physical Review E</i> , 2013, 87, 043107.	0.8	85
36	Electrostatic supersolitons in three-species plasmas. <i>Physics of Plasmas</i> , 2013, 20, .	0.7	67

#	ARTICLE	IF	CITATIONS
37	Dust-acoustic supersolitons in a three-species dusty plasma with kappa distributions. Journal of Plasma Physics, 2013, 79, 1039-1043.	0.7	43
38	Ambiguities in the Tsallis description of non-thermal plasma species. Journal of Plasma Physics, 2013, 79, 1031-1034.	0.7	41
39	Arbitrary amplitude ion-acoustic soliton coexistence and polarity in a plasma with two ion species. Physics of Plasmas, 2012, 19, 032305.	0.7	32
40	Nonlinear dust-acoustic solitary waves in strongly coupled dusty plasmas. Physical Review E, 2012, 86, 066404.	0.8	34
41	Head-on collisions of electrostatic solitons in multi-ion plasmas. Physics of Plasmas, 2012, 19, .	0.7	38
42	Head-on collisions of electrostatic solitons in nonthermal plasmas. Physical Review E, 2012, 86, 036402.	0.8	68
43	Comment on "Head-on collision of electron acoustic solitary waves in a plasma with nonextensive hot electrons". Astrophysics and Space Science, 2012, 339, 203-205.	0.5	6
44	Note on the single-shock solutions of the Korteweg-de Vries-Burgers equation. Astrophysics and Space Science, 2012, 338, 245-249.	0.5	42
45	Large acoustic solitons and double layers in plasmas with two positive ion species. Physics of Plasmas, 2011, 18, 042309.	0.7	30
46	Dust-acoustic solitary modes in plasmas with isothermal and nonthermal ions: Polarity switches and coexistence domains. Physics of Plasmas, 2011, 18, .	0.7	31
47	Comment on "Acoustic solitons in inhomogeneous pair-ion plasmas". [Phys. Plasmas 17, 122302 (2010)]. Physics of Plasmas, 2011, 18, .	0.7	0
48	Comment on the paper "Dust acoustic solitary waves in dusty plasma with nonthermal ions". Astrophysics and Space Science, 2010, 326, 151-152.	0.5	1
49	Ion-acoustic solitons in plasmas with two adiabatic constituents. Journal of Plasma Physics, 2010, 76, 277-286.	0.7	16
50	Nonthermal effects on existence domains for dust-acoustic solitary structures in plasmas with two-temperature ions. Physics of Plasmas, 2010, 17, .	0.7	38
51	Nonlinear acoustic waves in nonthermal dusty or pair plasmas. Physics of Plasmas, 2010, 17, 062302.	0.7	45
52	Nonlinear structures of strongly coupled complex plasmas in the proximity of a presheath/sheath edge. New Journal of Physics, 2010, 12, 073038.	1.2	8
53	Compressive and rarefactive solitary waves in nonthermal two-component plasmas. Physics of Plasmas, 2010, 17, .	0.7	54
54	New light on ion acoustic solitary waves in a plasma with two-temperature electrons. Europhysics Letters, 2010, 91, 15001.	0.7	116

#	ARTICLE	IF	CITATIONS
55	Nonlinear acoustic waves in nonthermal plasmas with negative and positive dust. <i>Physics of Plasmas</i> , 2009, 16, .	0.7	72
56	Comment on "Effects of charged dust particles on nonlinear ion acoustic solitary waves in a relativistic plasma" [Phys. Plasmas 16, 043701 (2009)]. <i>Physics of Plasmas</i> , 2009, 16, 064701.	0.7	6
57	Oblique propagation of solitary electrostatic waves in multispecies plasmas. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 285501.	0.7	30
58	Comment on "Large amplitude double layers in a positively charged dusty plasma with nonthermal electrons" [Phys. Plasmas 16, 063708 (2009)]. <i>Physics of Plasmas</i> , 2009, 16, 124703.	0.7	2
59	The Bohm sheath criterion in strongly coupled complex plasmas. <i>New Journal of Physics</i> , 2009, 11, 073013.	1.2	45
60	Linear description of nonlinear electromagnetic cold plasma modes based on generalized vorticity. <i>Physics of Plasmas</i> , 2009, 16, 082104.	0.7	0
61	Nonlinear electrostatic modes in astrophysical plasmas with charged dust distributions. <i>Astronomy and Astrophysics</i> , 2009, 503, 683-690.	2.1	7
62	Acoustic solitary waves in dusty and/or multi-ion plasmas with cold, adiabatic, and hot constituents. <i>Physics of Plasmas</i> , 2008, 15, 112309.	0.7	56
63	Large amplitude dust-acoustic solitary waves and double layers in nonthermal plasmas. <i>Physics of Plasmas</i> , 2008, 15, .	0.7	151
64	Ion- and electron-acoustic solitons in two-electron temperature space plasmas. <i>Physics of Plasmas</i> , 2008, 15, .	0.7	116
65	Ion-acoustic solitons in plasmas with two-temperature ions. <i>Physics of Plasmas</i> , 2008, 15, .	0.7	13
66	Dust-acoustic solitary structures in plasmas with nonthermal electrons and positive dust. <i>Nonlinear Processes in Geophysics</i> , 2008, 15, 551-555.	0.6	37
67	MULTIFLUID THEORY OF SOLITONS. , 2008, , .		4
68	Study of nonlinear ion- and electron-acoustic waves in multi-component space plasmas. <i>Nonlinear Processes in Geophysics</i> , 2008, 15, 903-913.	0.6	101
69	NONLINEAR WAVEPACKETS IN PAIR-ION AND ELECTRON-POSITRON-ION PLASMAS. , 2008, , .		0
70	Generation mechanism for electron acoustic solitary waves. <i>Physics of Plasmas</i> , 2007, 14, 052305.	0.7	65
71	Dust-acoustic waves in collisional dusty plasmas of planetary rings. <i>Astronomy and Astrophysics</i> , 2007, 461, 385-391.	2.1	45
72	Nonlinear perpendicular propagation of ordinary mode electromagnetic wave packets in pair plasmas and electron-positron-ion plasmas. <i>Physics of Plasmas</i> , 2007, 14, 022306.	0.7	83

#	ARTICLE	IF	CITATIONS
73	Obliquely propagating large amplitude solitary waves in charge neutral plasmas. <i>Nonlinear Processes in Geophysics</i> , 2007, 14, 49-57.	0.6	16
74	Reply to J. F. McKenzie et al.'s comment on "Obliquely propagating large amplitude solitary waves in charge neutral plasmas". <i>Nonlinear Processes in Geophysics</i> , 2007, 14, 545-546.	0.6	4
75	Necessary conditions for the generation of acoustic solitons in magnetospheric and space plasmas with hot ions. <i>Astrophysics and Space Sciences Transactions</i> , 2007, 3, 15-20.	1.0	57
76	On the existence of ion-acoustic double layers in two-electron temperature plasmas. <i>Physics of Plasmas</i> , 2006, 13, 042301.	0.7	32
77	Existence of bulk acoustic modes in pair plasmas. <i>Physics of Plasmas</i> , 2006, 13, 082301.	0.7	81
78	Existence domains for nonlinear structures in complex two-ion-temperature plasmas. <i>Journal of Physics A</i> , 2006, 39, 3137-3146.	1.6	14
79	Solitary waves in self-gravitating molecular clouds. <i>Astronomy and Astrophysics</i> , 2005, 438, 23-29.	2.1	16
80	Oblique propagation of large amplitude electromagnetic solitons in pair plasmas. <i>Physics of Plasmas</i> , 2005, 12, 032304.	0.7	36
81	Compressive and Rarefactive Electron-Acoustic Solitons and Double Layers in Space Plasmas. <i>Space Science Reviews</i> , 2005, 121, 299-311.	3.7	62
82	On the nonexistence of large amplitude stationary solitary waves in symmetric unmagnetized pair plasmas. <i>Nonlinear Processes in Geophysics</i> , 2005, 12, 569-574.	0.6	28
83	Effect of non-thermal ion distributions on the Jeans instability in dusty plasmas. <i>Journal of Plasma Physics</i> , 2005, 71, 177-184.	0.7	35
84	Compressive and rarefactive ion-acoustic solitons in a two component electron plasma. <i>Journal of Plasma Physics</i> , 2005, 71, 163-176.	0.7	15
85	Oblique non-neutral solitary Alfvén modes in weakly nonlinear pair plasmas. <i>New Journal of Physics</i> , 2005, 7, 94-94.	1.2	5
86	Note on rarefactive and compressive ion-acoustic solitons in a plasma containing two ion species. <i>Physics of Plasmas</i> , 2005, 12, 102305.	0.7	24
87	Potential hill electron-acoustic solitons and double layers in plasmas with two electron species. <i>Physics of Plasmas</i> , 2005, 12, 042901.	0.7	64
88	Parallel Propagating Electromagnetic Solitons and Oscillitons in Space Plasmas and in Relativistic Electron-Positron Plasmas. <i>Physica Scripta</i> , 2005, , 62.	1.2	4
89	Ion- and dust-acoustic solitons in dusty plasmas: Existence conditions for positive and negative potential solutions. <i>Physics of Plasmas</i> , 2005, 12, 082308.	0.7	51
90	The Alfvén and compressive resonances in a dusty self-gravitating plasma. <i>Physics of Plasmas</i> , 2005, 12, 082902.	0.7	3

#	ARTICLE	IF	CITATIONS
91	Large amplitude parallel propagating electromagnetic oscillitons. <i>Physics of Plasmas</i> , 2005, 12, 012307.	0.7	21
92	Nonlinear electromagnetic modes in astrophysical plasmas with dust distributions. <i>Astronomy and Astrophysics</i> , 2004, 421, 17-21.	2.1	3
93	Whistler oscillitons revisited: the role of charge neutrality?. <i>Nonlinear Processes in Geophysics</i> , 2004, 11, 447-452.	0.6	17
94	Magnetosonic modes with a beam of dust or secondary ions. <i>Physics of Plasmas</i> , 2004, 11, 4589-4595.	0.7	1
95	Gas-dynamic description of electrostatic solitons. <i>Journal of Plasma Physics</i> , 2004, 70, 237-250.	0.7	59
96	Kinetic Theory of Dust-Acoustic Waves in Plasmas With Dust Distributions and Charge Fluctuations. <i>IEEE Transactions on Plasma Science</i> , 2004, 32, 537-541.	0.6	22
97	Waves in Complex Plasmas With Dust Distributions (Charge/Size/Mass) Revisited. <i>IEEE Transactions on Plasma Science</i> , 2004, 32, 653-658.	0.6	3
98	Large amplitude solitary electromagnetic waves in electron-positron plasmas. <i>Physics of Plasmas</i> , 2004, 11, 3078-3082.	0.7	35
99	Compressive and rarefactive ion-acoustic solitons in bi-ion plasmas. <i>Physics of Plasmas</i> , 2004, 11, 1762-1769.	0.7	36
100	Electromagnetic modes in dusty plasmas with charge and mass distributions. <i>Physics of Plasmas</i> , 2003, 10, 956-962.	0.7	9
101	Dust-acoustic instability in inhomogeneous complex plasmas. <i>Physics of Plasmas</i> , 2003, 10, 3834-3840.	0.7	15
102	Electrostatic modes in dusty plasmas with continuous size distributions. <i>Physical Review E</i> , 2003, 67, 016406.	0.8	13
103	Research Note Dust Alfvén envelope solitons in astrophysical dusty plasmas. <i>Astronomy and Astrophysics</i> , 2003, 401, 849-850.	2.1	11
104	Static configurations of gravitating dusty plasmas. <i>Physical Review E</i> , 2002, 66, 056404.	0.8	24
105	Electrostatic modes in (self-gravitating) dusty plasmas with charge and mass distributions. <i>Physics of Plasmas</i> , 2002, 9, 2479-2485.	0.7	35
106	Unified derivation of Korteweg-de Vries- Zakharov-Kuznetsov equations in multispecies plasmas. <i>Journal of Physics A</i> , 2002, 35, 795-806.	1.6	36
107	The Alfvén resonance in a dusty plasma with a distribution of grain sizes. <i>Physics of Plasmas</i> , 2002, 9, 4845-4850.	0.7	18
108	Charge and Mass Fluctuations in Dusty Plasmas Revisited. <i>Physica Scripta</i> , 2001, 64, 494-500.	1.2	15

#	ARTICLE	IF	CITATIONS
109	Kinetic approach to low-frequency waves in dusty self-gravitating plasmas. <i>Physical Review E</i> , 2001, 63, 066406.	0.8	14
110	Dust-magnetosonic modes in planetary rings. <i>IEEE Transactions on Plasma Science</i> , 2001, 29, 283-287.	0.6	4
111	Dust-acoustic modes in self-gravitating plasmas with dust size distributions. <i>Physical Review E</i> , 2001, 64, 036401.	0.8	17
112	The Jeans-Buneman Instability in the Presence of an Ion Beam in a Dusty Plasma and the Influence of Dust-Size Distribution. <i>Physica Scripta</i> , 2000, 61, 112-118.	1.2	5
113	Waves in Dusty Space Plasmas. <i>Astrophysics and Space Science Library</i> , 2000, , .	1.0	625
114	Transition from Langmuir-Jeans to Alfvén-Jeans Modes in Dusty Plasmas. <i>Physica Scripta</i> , 2000, T84, 171.	1.2	3
115	Comment on "A new mathematical approach for finding the solitary waves in dusty plasma" [<i>Phys. Plasmas</i> 5, 3918 (1998)]. <i>Physics of Plasmas</i> , 1999, 6, 4392-4393.	0.7	7
116	Instabilities of Alfvén and magnetosonic waves in dusty cometary plasmas with an ion ring beam. <i>Physics of Plasmas</i> , 1999, 6, 36-43.	0.7	11
117	General Discussion of Nonlinear Electrostatic Modes in Multispecies Plasmas. <i>Physica Scripta</i> , 1999, T82, 98.	1.2	8
118	Bohm sheath criteria and double layers in multispecies plasmas. <i>Journal of Plasma Physics</i> , 1997, 57, 465-477.	0.7	20
119	Dust-acoustic waves in self-gravitating dusty plasmas with fluctuating dust charges. <i>Journal of Plasma Physics</i> , 1997, 58, 163-170.	0.7	36
120	Nonlinear waves in multispecies self-gravitating dusty plasmas. <i>Physica Scripta</i> , 1997, 55, 83-85.	1.2	25
121	Alfvénic Solitons in Ultrarelativistic Electron-Positron Plasmas. <i>Astrophysics and Space Science</i> , 1997, 253, 97-106.	0.5	51
122	Influence of dust mass distributions on generalized Jeans-Buneman instabilities in dusty plasmas. <i>Planetary and Space Science</i> , 1997, 45, 449-454.	0.9	88
123	Solitary Alfvén modes in relativistic electron-positron plasmas. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1996, 213, 177-182.	0.9	25
124	Korteweg-de Vries equation for magnetosonic modes in dusty plasmas. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1996, 219, 299-302.	0.9	22
125	Oblique solitary Alfvén modes in relativistic electron-positron plasmas. <i>Astrophysics and Space Science</i> , 1996, 240, 215-224.	0.5	21
126	Electrostatic solitons in multispecies electron-positron plasmas. <i>Astrophysics and Space Science</i> , 1996, 239, 125-139.	0.5	44

#	ARTICLE	IF	CITATIONS
127	Waves and instabilities in dusty space plasmas. <i>Space Science Reviews</i> , 1996, 77, 267.	3.7	312
128	Kortewegâ€“de Vries Equation for Oblique Modes in Magnetized Multiâ€“ion Plasmas. <i>Journal of the Physical Society of Japan</i> , 1996, 65, 2522-2525.	0.7	7
129	Conservations laws and solitary wave solutions for generalized Schamel equations. <i>Physica Scripta</i> , 1994, 50, 611-614.	1.2	32
130	Ion-acoustic double layers and solitons in multispecies auroral beam-plasmas. <i>Planetary and Space Science</i> , 1992, 40, 1055-1062.	0.9	42
131	Nonlinear dust-acoustic waves in multispecies dusty plasmas. <i>Planetary and Space Science</i> , 1992, 40, 1-6.	0.9	136
132	Finite-amplitude circularly polarized waves in a magnetized multispecies plasma with drifts. <i>Plasma Physics and Controlled Fusion</i> , 1989, 31, 103-109.	0.9	2
133	Ion-acoustic solitons in multi-component plasmas including negative ions at critical densities. <i>Journal of Plasma Physics</i> , 1988, 39, 71-79.	0.7	76
134	Linear and AlfvÃ©n waves in incompressible beam-plasma systemsâ€“. <i>International Journal of Electronics</i> , 1972, 33, 201-207.	0.9	1