

Igor Timofeev

List of Publications by Year in descending order

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61
papers

638
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516710

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61
times ranked

260
citing authors

#	ARTICLE	IF	CITATIONS
1	Regimes of enhanced electromagnetic emission in beam-plasma interactions. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	38
2	Dynamics and Spectral Composition of Subterahertz Emission From Plasma Column Due to Two-Stream Instability of Strong Relativistic Electron Beam. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2016, 6, 245-252.	3.1	36
3	Concept of Fusion Reactor Based on Multiple-Mirror Trap. <i>Fusion Science and Technology</i> , 2011, 59, 9-16.	1.1	35
4	Generation of powerful terahertz emission in a beam-driven strong plasma turbulence. <i>Plasma Physics and Controlled Fusion</i> , 2012, 54, 105004.	2.1	35
5	Impact of the dipole contribution on the terahertz emission of air-based plasma induced by tightly focused femtosecond laser pulses. <i>Physical Review E</i> , 2017, 95, 043209.	2.1	32
6	Generation of High-Power Sub-THz Waves in Magnetized Turbulent Electron Beam Plasmas. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2014, 35, 81-90.	2.2	30
7	Simulations of electromagnetic emissions produced in a thin plasma by a continuously injected electron beam. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	27
8	Generation of high-power electromagnetic radiation by a beam-driven plasma antenna. <i>Plasma Physics and Controlled Fusion</i> , 2016, 58, 045009.	2.1	27
9	Generation of high-field narrowband terahertz radiation by counterpropagating plasma wakefields. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	26
10	Well-directed flux of megawatt sub-mm radiation generated by a relativistic electron beam in a magnetized plasma with strong density gradients. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 045002.	2.1	25
11	Development of Extended Heating Pulse Operation Mode at GOL-3. <i>Fusion Science and Technology</i> , 2013, 63, 29-34.	1.1	21
12	Relaxation of a relativistic electron beam in plasma in the trapping regime. <i>Physics of Plasmas</i> , 2006, 13, 062312.	1.9	20
13	Second harmonic electromagnetic emission of a turbulent magnetized plasma driven by a powerful electron beam. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	19
14	Theory of a beam-driven plasma antenna. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	19
15	High-power terahertz emission from a plasma penetrated by counterstreaming different-size electron beams. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	19
16	Direct computation of the growth rate for the instability of a warm relativistic electron beam in a cold magnetized plasma. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	16
17	Simulations of a beam-driven plasma antenna in the regime of plasma transparency. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	16
18	Simulations of turbulent plasma heating by powerful electron beams. <i>Physics of Plasmas</i> , 2010, 17, 083111.	1.9	15

#	ARTICLE	IF	CITATIONS
19	Exact kinetic theory for the instability of an electron beam in a hot magnetized plasma. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	14
20	Saturation of two-stream instability of an electron beam in plasma. <i>Plasma Physics Reports</i> , 2009, 35, 518-525.	0.9	13
21	Highly efficient electromagnetic emission during 100 keV electron beam relaxation in a thin magnetized plasma. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	13
22	Note on quantitatively correct simulations of the kinetic beam-plasma instability. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	12
23	Second harmonic electromagnetic emission in a beam-driven plasma antenna. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 055005.	2.1	12
24	Two-dimensional simulations of nonlinear beam-plasma interaction in isotropic and magnetized plasmas. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	11
25	Experimental and Theoretical Investigations of High Power Sub-Millimeter Wave Emission at Two-Stream Instability of High-Current REB. <i>Fusion Science and Technology</i> , 2013, 63, 82-87.	1.1	10
26	Efficient regime of electromagnetic emission in a plasma with counterstreaming electron beams. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	10
27	Characterization of wavebreaking time and dissipation of weakly nonlinear wakefields due to ion motion. <i>Physics of Plasmas</i> , 2018, 25, 103103.	1.9	10
28	Coherent terahertz emission from a plasma layer due to linear conversion of laser wakefields on pre-modulated ion density. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 125006.	2.1	9
29	Electromagnetic Emission Produced by Three-wave Interactions in a Plasma with Continuously Injected Counterstreaming Electron Beams. <i>Astrophysical Journal</i> , 2020, 904, 88.	4.5	8
30	Simulations of electromagnetic emission from colliding laser wakefields. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 045017.	2.1	7
31	Optimal synchronization of laser pulses in THz generation scheme with colliding plasma wakes. <i>Physics of Plasmas</i> , 2021, 28, 013103.	1.9	6
32	Electron beam-plasma discharge in GDT mirror trap: particle-in-cell simulations. <i>Nuclear Fusion</i> , 2022, 62, 066033.	3.5	6
33	Electron beam-plasma discharge in GDT mirror trap: experiments on plasma start-up with electron gun. <i>Nuclear Fusion</i> , 2022, 62, 066034.	3.5	6
34	Simulations of Turbulent Plasma Heating by Powerful Electron Beams. <i>Fusion Science and Technology</i> , 2011, 59, 70-73.	1.1	4
35	Particle-in-cell simulations of 100 keV electron beam interaction with a thin magnetized plasma. <i>AIP Conference Proceedings</i> , 2016, .	0.4	4
36	Electromagnetic emission due to nonlinear interaction of laser wakefields colliding in plasma at an oblique angle. <i>Plasma Physics and Controlled Fusion</i> , 2021, 63, 045001.	2.1	4

#	ARTICLE	IF	CITATIONS
37	Particle-in-Cell Simulations of High-Power THz Generator Based on the Collision of Strongly Focused Relativistic Electron Beams in Plasma. Photonics, 2021, 8, 172.	2.0	4
38	Energy Content and Spectral Composition of a Submillimeter Radiation Flux Generated by a High-Current Electron Beam in a Plasma Column With Density Gradients. IEEE Transactions on Plasma Science, 2022, 50, 2348-2363.	1.3	4
39	Modulational instability of a Langmuir wave in plasmas with energetic tails of superthermal electrons. Physics of Plasmas, 2013, 20, 012115.	1.9	3
40	Generation of a Directed Flux of Megawatt THz Radiation as a Result of Strong REB-Plasma Interaction in a Plasma Column. IEEE Transactions on Plasma Science, 2021, 49, 3371-3376.	1.3	3
41	Beam-plasma system as a source of powerful submillimeter and terahertz radiation (experimental and numerical simulations). Journal of Physics: Conference Series, 2019, 1103, 012022.	0.4	2
42	Comparison of open boundary conditions realizations for continuous injection of an electron beam into a plasma in the case of the PIC and parabolic form-factors. Journal of Physics: Conference Series, 2018, 1103, 012022.	0.4	2
43	PIC simulations of high-power THz radiation produced by the collision of profiled plasma wakefields. Journal of Physics: Conference Series, 2021, 2028, 012008.	0.4	2
44	Mechanisms of submillimeter wave generation by kiloampere REB in a plasma column with strong density gradients. , 2019, , .		1
45	Beam-Plasma Interaction System Providing Ten Megawatt Power of THz Radiation Flux in Microsecond Pulse. , 2021, , .		1
46	Intense Beam-Plasma Interaction As A Source Of Sub-Millimeter Radiation. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya Fizika, 2016, 11, 78-104.	0.1	1
47	Ion dynamics in plasma compensation scheme. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 485, 228-233.	1.6	0
48	Generation of terahertz electromagnetic radiation in a beam-driven turbulent plasma. , 2012, , .		0
49	GOL-PET experiments on THz-emission from dense plasma at relativistic electron beam relaxation. , 2015, , .		0
50	Linear conversion of upper-hybrid to electromagnetic waves as a mechanism of sub-THz emission in laboratory REB-plasma experiments. , 2015, , .		0
51	High-power terahertz emission at plasma and double plasma frequencies during REB-plasma interaction. , 2015, , .		0
52	Mechanisms of enhanced electromagnetic emission in laboratory beam-plasma systems. AIP Conference Proceedings, 2016, , .	0.4	0
53	Theory of electromagnetic wave generation via a beam-plasma antenna. AIP Conference Proceedings, 2016, , .	0.4	0
54	Comment on the paper "Radially polarized terahertz radiation in laser-induced linear plasma wakefields". Optik, 2017, 130, 1347-1348.	2.9	0

#	ARTICLE	IF	CITATIONS
55	Study of 0.3-0.8 THz flux generated by magnetized plasma column due to relaxation of high-current REB. EPJ Web of Conferences, 2017, 149, 05006.	0.3	0
56	Theory for High-Field Narrowband THz Generation via Colliding at an Oblique Angle Plasma Wakefields. , 2018, , .		0
57	Narrowband Thz generation by colliding plasma waves with different transverse sizes. , 2018, , .		0
58	Current treatment approach to non-clear cell renal carcinoma. Onkourologiya, 2015, 11, 24.	0.3	0
59	Coherent THz Emission Produced in Plasma by Transversely Modulated Colliding Laser Beams. , 2021, , .		0
60	Transient regime of one-dimensional two-stream instability. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya Fizika, 2008, 3, 62-65.	0.1	0
61	Two-Dimensional Numerical Model for Studies of Collective Beam-Plasma Interaction. Vestnik Novosibirskogo Gosudarstvennogo Universiteta Seriya Fizika, 2010, 5, 85-97.	0.1	0