Sergei V Bulanov

List of Publications by Citations

252 papers	13,819 citations	56 h-index	114 g-index
288 ext. papers	15,520 ext. citations	3.2 avg, IF	6.24 L-index

#	Paper	IF	Citations
252	Optics in the relativistic regime. *Reviews of Modern Physics*, **2006**, 78, 309-371	40.5	1314
251	Fast ignition by intense laser-accelerated proton beams. *Physical Review Letters*, **2001**, 86, 436-9	7.4	991
250	Highly efficient relativistic-ion generation in the laser-piston regime. *Physical Review Letters*, **2004**, 92, 175003	7.4	767
249	Multi-GeV electron beams from capillary-discharge-guided subpetawatt laser pulses in the self-trapping regime. *Physical Review Letters*, **2014**, 113, 245002	7.4	595
248	Oncological hadrontherapy with laser ion accelerators. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2002**, 299, 240-247	2.3	397
247	Feasibility of using laser ion accelerators in proton therapy. *Plasma Physics Reports*, **2002**, 28, 453-456	1.2	383
246	Interaction of an ultrashort, relativistically strong laser pulse with an overdense plasma. *Physics of Plasmas*, **1994**, 1, 745-757	2.1	378
245	Fast Ion Generation by High-Intensity Laser Irradiation of Solid Targets and Applications. *Fusion Science and Technology*, **2006**, 49, 412-439	1.1	354
244	Petawatt Laser Guiding and Electron Beam Acceleration to 8 GeV in a Laser-Heated Capillary Discharge Waveguide. *Physical Review Letters*, **2019**, 122, 084801	7.4	291
243	Light intensification towards the Schwinger limit. *Physical Review Letters*, **2003**, 91, 085001	7.4	267
242	Proposed double-layer target for the generation of high-quality laser-accelerated ion beams. *Physical Review Letters*, **2002**, 89, 175003	7.4	246
241	Nonlinear electrodynamics of the interaction of ultra-intense laser pulses with a thin foil. *Physics of Plasmas*, **1998**, 5, 2727-2741	2.1	237
240	Transverse-Wake Wave Breaking. *Physical Review Letters*, **1997**, 78, 4205-4208	7.4	230
239	Photon bubbles and ion acceleration in a plasma dominated by the radiation pressure of an electromagnetic pulse. *Physical Review Letters*, **2007**, 99, 065002	7.4	216
238	Nonlinear depletion of ultrashort and relativistically strong laser pulses in an underdense plasma. *Physics of Fluids B*, **1992**, 4, 1935-1942		198
237	Multiple colliding electromagnetic pulses: a way to lower the threshold of e+ e- pair production from vacuum. *Physical Review Letters*, **2010**, 104, 220404	7.4	173
236	Snapshots of laser wakefields. *Nature Physics*, **2006**, 2, 749-753	16.2	147

235	Energy increase in multi-MeV ion acceleration in the interaction of a short pulse laser with a cluster-gas target. *Physical Review Letters*, **2009**, 103, 165002	7.4	144
234	Accelerating monoenergetic protons from ultrathin foils by flat-top laser pulses in the directed-Coulomb-explosion regime. *Physical Review E*, **2008**, 78, 026412	2.4	144
233	High-power γ-ray flash generation in ultraintense laser-plasma interactions. *Physical Review Letters*, **2012**, 108, 195001	7.4	139
232	Solitonlike Electromagnetic Waves behind a Superintense Laser Pulse in a Plasma. *Physical Review Letters*, **1999**, 82, 3440-3443	7.4	138
231	Simulations of a hydrogen-filled capillary discharge waveguide. *Physical Review E*, **2002**, 65, 016407	2.4	136
230	High-energy ions from near-critical density plasmas via magnetic vortex acceleration. *Physical Review Letters*, **2010**, 105, 135002	7.4	124
229	Energetic protons from a few-micron metallic foil evaporated by an intense laser pulse. *Physical Review Letters*, **2003**, 91, 215001	7.4	124
228	Unlimited ion acceleration by radiation pressure. *Physical Review Letters*, **2010**, 104, 135003	7.4	121
227	Schwinger limit attainability with extreme power lasers. *Physical Review Letters*, **2010**, 105, 220407	7.4	120
226	Relativistic electromagnetic solitons in the electron-ion plasma. *Physical Review Letters*, **2001**, 86, 5289-92	7.4	117
225	Active Plasma Lensing for Relativistic Laser-Plasma-Accelerated Electron Beams. *Physical Review Letters*, **2015**, 115, 184802	7.4	111
224	Low-frequency relativistic electromagnetic solitons in collisionless plasmas. *JETP Letters*, **1998**, 68, 36-41	1.2	111
223	Interaction of electromagnetic waves with plasma in the radiation-dominated regime. *Plasma Physics Reports*, **2004**, 30, 196-213	1.2	108
222	Electron vortices produced by ultraintense laser pulses. *Physical Review Letters*, **1996**, 76, 3562-3565	7.4	104
221	Demonstration of laser-frequency upshift by electron-density modulations in a plasma wakefield. *Physical Review Letters*, **2007**, 99, 135001	7.4	100
220	Nonlinear Thomson scattering in the strong radiation damping regime. *Physics of Plasmas*, **2005**, 12, 093106	2.4	99
219	Two-Dimensional Regimes of Self-Focusing, Wake Field Generation, and Induced Focusing of a Short Intense Laser Pulse in an Underdense Plasma. *Physical Review Letters*, **1995**, 74, 710-713	7.4	99
218	Formation of Electromagnetic Postsolitons in Plasmas. *Physical Review Letters*, **2001**, 87,	7.4	94

217	Bursts of Superreflected Laser Light from Inhomogeneous Plasmas due to the Generation of Relativistic Solitary Waves. *Physical Review Letters*, **1999**, 83, 3434-3437	7.4	94
216	Relativistic laser-matter interaction and relativistic laboratory astrophysics. *European Physical Journal D*, **2009**, 55, 483-507	1.3	92
215	Laser ion acceleration via control of the near-critical density target. *Physical Review E*, **2008**, 77, 016401	2.4	90
214	Three-dimensional relativistic electromagnetic subcycle solitons. *Physical Review Letters*, **2002**, 89, 275002	7.4	86
213	Relativistic mirrors in plasmas. Novel results and perspectives. *Physics-Uspekhi*, **2013**, 56, 429-464	2.8	83
212	Proton acceleration to 40 MeV using a high intensity, high contrast optical parametric chirped-pulse amplification/Ti:sapphire hybrid laser system. *Optics Letters*, **2012**, 37, 2868-70	3	81
211	Electromagnetic cascade in high-energy electron, positron, and photon interactions with intense laser pulses. *Physical Review A*, **2013**, 87,	2.6	79
210	Enhancement of photon number reflected by the relativistic flying mirror. *Physical Review Letters*, **2009**, 103, 235003	7.4	77
209	Computer Simulation of the Three-Dimensional Regime of Proton Acceleration in the Interaction of Laser Radiation with a Thin Spherical Target. *Plasma Physics Reports*, **2001**, 27, 363-371	1.2	77
208	On the problems of relativistic laboratory astrophysics and fundamental physics with super powerful lasers. *Plasma Physics Reports*, **2015**, 41, 1-51	1.2	76
207	Controlled electron injection into the wake wave using plasma density inhomogeneity. *Physics of Plasmas*, **2008**, 15, 073111	2.1	75
206	Attosecond pulse generation in the relativistic regime of the laser-foil interaction: The sliding mirror model. *Physics of Plasmas*, **2006**, 13, 013107	2.1	75
205	Generation of collimated beams of relativistic ions in laser-plasma interactions. *JETP Letters*, **2000**, 71, 407-411	1.2	74
204	Ion acceleration by superintense laser pulses in plasmas. *JETP Letters*, **1999**, 70, 82-89	1.2	73
203	Laser ion acceleration for hadron therapy. *Physics-Uspekhi*, **2014**, 57, 1149-1179	2.8	72
202	Frequency multiplication of light back-reflected from a relativistic wake wave. *Physics of Plasmas*, **2007**, 14, 123106	2.1	72
201	Lorentz-Abraham-Dirac versus Landau-Lifshitz radiation friction force in the ultrarelativistic electron interaction with electromagnetic wave (exact solutions). *Physical Review E*, **2011**, 84, 056605	2.4	71
200	Strong Radiation-Damping Effects in a Gamma-Ray Source Generated by the Interaction of a High-Intensity Laser with a Wakefield-Accelerated Electron Beam. *Physical Review X*, **2012**, 2,	9.1	70

199	Comment on "Collimated multi-MeV ion beams from high-intensity laser interactions with underdense plasma". *Physical Review Letters*, **2007**, 98, 049503; discussion 049504	7.4	63
198	On the design of experiments for the study of extreme field limits in the interaction of laser with ultrarelativistic electron beam. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2011**, 660, 31-42	1.2	59
197	Efficiency of ion acceleration by a relativistically strong laser pulse in an underdense plasma. *Plasma Physics Reports*, **2001**, 27, 211-220	1.2	57
196	Simultaneous generation of a proton beam and terahertz radiation in high-intensity laser and thin-foil interaction. *Applied Physics B: Lasers and Optics*, **2008**, 90, 373-377	1.9	56
195	Polarization, hosing and long time evolution of relativistic laser pulses. *Physics of Plasmas*, **2001**, 8, 4149-4155	2.1	56
194	Electron, positron, and photon wakefield acceleration: trapping, wake overtaking, and ponderomotive acceleration. *Physical Review Letters*, **2006**, 96, 014803	7.4	55
193	Relativistic Interaction of Laser Pulses with Plasmas. *Reviews of Plasma Physics*, **2001**, 227-335		55
192	Soft-x-ray harmonic comb from relativistic electron spikes. *Physical Review Letters*, **2012**, 108, 135004	7.4	53
191	Boosting laser-ion acceleration with multi-picosecond pulses. *Scientific Reports*, **2017**, 7, 42451	4.9	51
190	Electron optical injection with head-on and countercrossing colliding laser pulses. *Physical Review Letters*, **2009**, 103, 194803	7.4	50
189	Soft x-ray source for nanostructure imaging using femtosecond-laser-irradiated clusters. *Applied Physics Letters*, **2008**, 92, 121110	3.4	49
188	Relativistic electromagnetic solitons in a warm quasineutral electron–ion plasma. *Physics of Plasmas*, **2003**, 10, 639-649	2.1	49
187	Ion acceleration in a dipole vortex in a laser plasma corona. *Plasma Physics Reports*, **2005**, 31, 369	1.2	49
186	On the design of experiments for the study of relativistic nonlinear optics in the limit of single-cycle pulse duration and single-wavelength spot size. *Plasma Physics Reports*, **2002**, 28, 12-27	1.2	47
185	Dynamics of relativistic solitons. *Plasma Physics and Controlled Fusion*, **2005**, 47, A73-A80	2	47
184	Relativistic solitons in magnetized plasmas. *Physical Review E*, **2000**, 62, 4146-51	2.4	47
183	Boosted high-harmonics pulse from a double-sided relativistic mirror. *Physical Review Letters*, **2009**, 103, 025002	7.4	45
182	High-Contrast, High-Intensity Petawatt-Class Laser and Applications. *IEEE Journal of Selected Topics in Quantum Electronics*, **2015**, 21, 232-249	3.8	44

181	Attractors and chaos of electron dynamics in electromagnetic standing waves. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2015**, 379, 2044-2054	2.3	43
180	Bow wave from ultraintense electromagnetic pulses in plasmas. *Physical Review Letters*, **2008**, 101, 265001	7.4	41
179	Generation of high-quality charged particle beams during the acceleration of ions by high-power laser radiation. *Plasma Physics Reports*, **2002**, 28, 975-991	1.2	41
178	Temporal contrast enhancement of petawatt-class laser pulses. *Optics Letters*, **2012**, 37, 3363-5	3	40
177	Low-threshold ablation of dielectrics irradiated by picosecond soft x-ray laser pulses. *Applied Physics Letters*, **2009**, 94, 231107	3.4	39
176	Interaction of electromagnetic waves with caustics in plasma flows. *Physical Review E*, **2008**, 78, 056402	2.4	39
175	Prepulse and amplified spontaneous emission effects on the interaction of a petawatt class laser with thin solid targets. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2014**, 745, 150-163	1.2	38
174	A kinetic model for the one-dimensional electromagnetic solitons in an isothermal plasma. *Physics of Plasmas*, **2002**, 9, 2562-2568	2.1	38
173	Dark solitons in electron-positron plasmas. *Physical Review E*, **2001**, 64, 066401	2.4	38
172	Observation of magnetized soliton remnants in the wake of intense laser pulse propagation through plasmas. *Physical Review Letters*, **2010**, 105, 175002	7.4	36
171	Interaction of high contrast laser pulse with foam-attached target. *Physics of Plasmas*, **2010**, 17, 113107	2.1	34
170	Studies of laser wakefield structures and electron acceleration in underdense plasmasa). *Physics of Plasmas*, **2008**, 15, 056703	2.1	33
169	Single-cycle high-intensity electromagnetic pulse generation in the interaction of a plasma wakefield with regular nonlinear structures. *Physical Review E*, **2006**, 73, 036408	2.4	33
168	Generation of high-energy attosecond pulses by the relativistic-irradiance short laser pulse interacting with a thin foil. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2006**, 349, 256-263	2.3	33
167	Depletion of Intense Fields. *Physical Review Letters*, **2017**, 118, 154803	7.4	32
166	Self-guiding of 100TW femtosecond laser pulses in centimeter-scale underdense plasma. *Physics of Plasmas*, **2007**, 14, 040703	2.1	32
165	Ion acceleration, magnetic field line reconnection, and multiple current filament coalescence of a relativistic electron beam in a plasma. *Physics of Plasmas*, **2002**, 9, 2959-2970	2.1	32
164	Radiation pressure acceleration: The factors limiting maximum attainable ion energy. *Physics of Plasmas*, **2016**, 23, 056703	2.1	30

163	Relativistic plasma physics in supercritical fields. *Physics of Plasmas*, **2020**, 27, 050601	2.1	29
162	Laser-heater assisted plasma channel formation in capillary discharge waveguides. *Physics of Plasmas*, **2013**, 20, 020703	2.1	28
161	Tunable high-energy ion source via oblique laser pulse incident on a double-layer target. *Physical Review Letters*, **2008**, 100, 145001	7.4	28
160	Soliton synchrotron afterglow in a laser plasma. *Physical Review Letters*, **2004**, 92, 255001	7.4	28
159	Slow electromagnetic solitons in electron-ion plasmas. *Plasma Physics Reports*, **2001**, 27, 641-651	1.2	28
158	Diagnostic of laser contrast using target reflectivity. *Applied Physics Letters*, **2009**, 94, 241102	3.4	27
157	Spallative Ablation of Metals and Dielectrics. *Contributions To Plasma Physics*, **2009**, 49, 455-466	1.4	27
156	Spallative ablation of dielectrics by X-ray laser. *Applied Physics A: Materials Science and Processing*, **2010**, 101, 87-96	2.6	27
155	Spectral and dynamical features of the electron bunch accelerated by a short-pulse high intensity laser in an underdense plasma. *Physics of Plasmas*, **2005**, 12, 073103	2.1	27
154	On some theoretical problems of laser wake-field accelerators. *Journal of Plasma Physics*, **2016**, 82,	2.7	26
153	Feasibility of Using Laser Ion Accelerators in Proton Therapy. *AIP Conference Proceedings*, **2004**,	0	25
152	Laser pulse guiding and electron acceleration in the ablative capillary discharge plasma. *Physics of Plasmas*, **2009**, 16, 093101	2.1	24
151	Ion acceleration from thin foil and extended plasma targets by slow electromagnetic wave and related ion-ion beam instability. *Physics of Plasmas*, **2012**, 19, 103105	2.1	24
150	High-efficiency γ-ray flash generation via multiple-laser scattering in ponderomotive potential well. *Physical Review E*, **2017**, 95, 013210	2.4	23
149	Generation of stable and low-divergence 10-MeV quasimonoenergetic electron bunch using argon gas jet. *Physical Review Special Topics: Accelerators and Beams*, **2009**, 12,		23
148	Brilliant gamma-ray beam and electron–positron pair production by enhanced attosecond pulses. *Communications Physics*, **2018**, 1,	5.4	23
147	Strong field electrodynamics of a thin foil. *Physics of Plasmas*, **2013**, 20, 123114	2.1	22
146	Efficient generation of Xe K-shell x rays by high-contrast interaction with submicrometer clusters. *Optics Letters*, **2011**, 36, 1614-6	3	22

145	Radiotherapy using a laser proton accelerator. *AIP Conference Proceedings*, **2008**,	0	22
144	Polarization effects and anisotropy in three-dimensional relativistic self-focusing. *Physical Review E*, **2002**, 65, 045402	2.4	22
143	Burst intensification by singularity emitting radiation in multi-stream flows. *Scientific Reports*, **2017**, 7, 17968	4.9	21
142	Helium-3 and helium-4 acceleration by high power laser pulses for hadron therapy. *Physical Review Special Topics: Accelerators and Beams*, **2015**, 18,		21
141	On the ion acceleration by high power electromagnetic waves in the radiation pressure dominated regime. *Comptes Rendus Physique*, **2009**, 10, 216-226	1.4	20
140	Fast magnetic-field annihilation in the relativistic collisionless regime driven by two ultrashort high-intensity laser pulses. *Physical Review E*, **2016**, 93, 013203	2.4	19
139	Relativistic mirrors in laser plasmas (analytical methods). *Plasma Sources Science and Technology*, **2016**, 25, 053001	3.5	19
138	High order harmonics from relativistic electron spikes. *New Journal of Physics*, **2014**, 16, 093003	2.9	19
137	Possibility of measuring photon-photon scattering via relativistic mirrors. *Physical Review A*, **2012**, 86,	2.6	19
136	Relativistic spherical plasma waves. *Physics of Plasmas*, **2012**, 19, 020702	2.1	19
135	Wave-breaking injection of electrons to a laser wake field in plasma channels at the strong focusing regime. *Physics of Plasmas*, **2006**, 13, 103101	2.1	19
134	High-Quality Laser-Produced Proton Beam Realized by the Application of a Synchronous RF Electric Field. *Japanese Journal of Applied Physics*, **2007**, 46, L717-L720	1.4	19
133	Nonlinear plasma wave in magnetized plasmas. *Physics of Plasmas*, **2013**, 20, 083113	2.1	18
132	Interaction of Short Laser Pulses in Wavelength Range from Infrared to X-ray with Metals, Semiconductors, and Dielectrics. *Contributions To Plasma Physics*, **2011**, 51, 361-366	1.4	18
131	Laser-Particle Collider for Multi-GeV Photon Production. *Physical Review Letters*, **2019**, 122, 254801	7.4	17
130	Laser beam coupling with capillary discharge plasma for laser wakefield acceleration applications. *Physics of Plasmas*, **2017**, 24, 083109	2.1	17
129	On the breaking of a plasma wave in a thermal plasma. I. The structure of the density singularity. *Physics of Plasmas*, **2012**, 19, 113102	2.1	17
128	Magnetic reconnection: from MHD to QED. *Plasma Physics and Controlled Fusion*, **2017**, 59, 014029	2	16

127	Observation of plasma density dependence of electromagnetic soliton excitation by an intense laser pulse. *Physics of Plasmas*, **2011**, 18, 080704	2.1	16
126	Propagation-based phase-contrast enhancement of nanostructure images using a debris-free femtosecond-laser-driven cluster-based plasma soft x-ray source and an LiF crystal detector. *Applied Optics*, **2009**, 48, 6271-6	0.2	16
125	Ion acceleration in laser generated megatesla magnetic vortex. *Physics of Plasmas*, **2019**, 26, 103108	2.1	15
124	Ultra-Intense, High Spatio-Temporal Quality Petawatt-Class Laser System and Applications. *Applied Sciences (Switzerland)*, **2013**, 3, 214-250	2.6	15
123	Dependence of the ion energy on the parameters of the laser pulse and target in the radiation-pressure-dominated regime of acceleration. *Plasma Physics Reports*, **2010**, 36, 15-29	1.2	15
122	On the production of flat electron bunches for laser wakefield acceleration. *Journal of Experimental and Theoretical Physics*, **2007**, 105, 916-926	1	15
121	Pion production under the action of intense ultrashort laser pulse on a solid target. *JETP Letters*, **2001**, 74, 586-589	1.2	14
120	Stability of a mass accreting shell expanding in a plasma. *Physical Review E*, **2002**, 65, 066405	2.4	14
119	High power gamma flare generation in multi-petawatt laser interaction with tailored targets. *Physics of Plasmas*, **2018**, 25, 123105	2.1	14
118	Electromagnetic shocks in the quantum vacuum. *Physical Review D*, **2019**, 99,	4.9	13
117	Coherent, Short-Pulse X-ray Generation via Relativistic Flying Mirrors. *Quantum Beam Science*, **2018**, 2, 9	1.6	13
116	On the breaking of a plasma wave in a thermal plasma. II. Electromagnetic wave interaction with the breaking plasma wave. *Physics of Plasmas*, **2012**, 19, 113103	2.1	13
115	Laser-heated capillary discharge plasma waveguides for electron acceleration to 8 GeV. *Physics of Plasmas*, **2020**, 27, 053102	2.1	12
114	Experimental studies of the high and low frequency electromagnetic radiation produced from nonlinear laser-plasma interactions. *European Physical Journal D*, **2009**, 55, 465-474	1.3	12
113	Nonlinear Thomson scattering with strong radiation damping. *Journal of Plasma Physics*, **2006**, 72, 1315	2.7	12
112	Controlling the generation of high frequency electromagnetic pulses with relativistic flying mirrors using an inhomogeneous plasma. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2013**, 377, 1114-1118	2.3	11
111	Stochastic regimes in the driven oscillator with a step-like nonlinearity. *Physics of Plasmas*, **2015**, 22, 063108	2.1	11
110	New Method to Measure the Rise Time of a Fast Pulse Slicer for Laser Ion Acceleration Research. *IEEE Transactions on Plasma Science*, **2008**, 36, 1872-1877	1.3	11

109	Plasma equilibrium inside various cross-section capillary discharges. *Physics of Plasmas*, **2017**, 24, 053111	2.1	11
108	Intense and Reproducible K Emissions from Micron-Sized Kr Cluster Target Irradiated with Intense Femtosecond Laser Pulses. *Japanese Journal of Applied Physics*, **2010**, 49, 126401	1.4	10
107	Effect of the magnetic field on the resonant particle acceleration. *Plasma Physics Reports*, **2000**, 26, 1005-1014	1.2	10
106	Capillary discharges for guiding of laser pulses. *Plasma Physics Reports*, **2000**, 26, 10-20	1.2	10
105	Magnetic-field generation and wave-breaking in collisionless plasmas. *Journal of Plasma Physics*, **1998**, 60, 331-339	2.7	10
104	Relativisitcally upshifted higher harmonic generation via relativistic flying mirrors. *Plasma Physics and Controlled Fusion*, **2018**, 60, 074007	2	9
103	Fast magnetic energy dissipation in relativistic plasma induced by high order laser modes. *High Power Laser Science and Engineering*, **2016**, 4,	4.3	9
102	Explosion of relativistic electron vortices in laser plasmas. *Physics of Plasmas*, **2016**, 23, 093116	2.1	9
101	Evolution of laser induced electromagnetic postsolitons in multi-species plasma. *Physics of Plasmas*, **2015**, 22, 112302	2.1	9
100	On extreme field limits in high power laser matter interactions: radiation dominant regimes in high intensity electromagnetic wave interaction with electrons **2013**,		9
99	Generation of Quantum Beams in Large Clusters Irradiated by Super-Intense, High Contrast Femtosecond Laser Pulses. *Contributions To Plasma Physics*, **2013**, 53, 148-160	1.4	9
98	Kinetic relativistic solitons in electron positron ion plasmas. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2004**, 329, 464-474	2.3	9
97	On the motion of charged particles in a sheared force-free magnetic field. *Journal of Plasma Physics* , **2002**, 67, 215-221	2.7	9
96	Towards a novel laser-driven method of exotic nuclei extraction acceleration for fundamental physics and technology. *Plasma Physics Reports*, **2016**, 42, 327-337	1.2	9
95	Multi-charged heavy ion acceleration from the ultra-intense short pulse laser system interacting with the metal target. *Review of Scientific Instruments*, **2014**, 85, 02B904	1.7	8
94	Phase space dynamics after the breaking of a relativistic Langmuir wave in a thermal plasma. *European Physical Journal D*, **2014**, 68, 1	1.3	8
93	Paradoxical stabilization of forced oscillations by strong nonlinear friction. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2017**, 381, 2559-2564	2.3	8
92	Radial focusing and energy compression of a laser-produced proton beam by a synchronous rf field. *Physical Review Special Topics: Accelerators and Beams*, **2009**, 12,		8

91	Ionography of nanostructures with the use of a laser plasma of cluster targets. *JETP Letters*, **2009**, 89, 485-491	1.2	8
90	Evolution of an intense elliptically polarized electromagnetic wave in underdense plasmas. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2004**, 320, 438-445	2.3	8
89	Electromagnetic solitons in quantum vacuum. *Physical Review D*, **2020**, 101,	4.9	7
88	The effect of laser pulse incidence angle on the proton acceleration from a double-layer target. *Plasma Physics and Controlled Fusion*, **2009**, 51, 024002	2	7
87	High-power laser-driven source of ultra-short X-ray and gamma-ray pulses. *European Physical Journal D*, **2009**, 55, 457-463	1.3	7
86	Quasi-monochromatic pencil beam of laser-driven protons generated using a conical cavity target holder. *Physics of Plasmas*, **2012**, 19, 030706	2.1	7
85	Relativistic electron beam slicing by wakefield in plasmas. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2008**, 372, 4813-4816	2.3	7
84	Numerical simulation of melting and evaporation of a cold foil target irradiated by a pre-pulse. *Applied Physics A: Materials Science and Processing*, **2004**, 79, 1185-1187	2.6	7
83	Anisotropic Filamentation of Linearly Polarized Ultra Intense Laser in Overdense Plasmas. *Journal of Plasma and Fusion Research*, **1999**, 75-CD, 219-233		7
82	Laser ion acceleration from mass-limited targets with preplasma. *Physics of Plasmas*, **2016**, 23, 053114	2.1	6
81	On production and asymmetric focusing of flat electron beams using rectangular capillary discharge plasmas. *Physics of Plasmas*, **2017**, 24, 123120	2.1	6
80	High performance imaging of relativistic soft X-ray harmonics by sub-micron resolution LiF film detectors. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2012**, 9, 2331-2335		6
79	Condition of MeV Electron Bunch Generated from Argon Gas-Jet Target in the Self-Modulated Laser Wakefield Regime. *Journal of the Physical Society of Japan*, **2011**, 80, 105001	1.5	6
78	Control of energy distribution of the proton beam with an oblique incidence of the laser pulse. *Physics of Plasmas*, **2009**, 16, 033111	2.1	6
77	Relaxation of an electron beam during the onset of the electromagnetic filamentation instability. *Plasma Physics Reports*, **2001**, 27, 330-334	1.2	6
76	Electron-positron pair creation in the electric fields generated by micro-bubble implosions. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2020**, 384, 126854	2.3	6
75	HELL: High-Energy Electrons by Laser Light, a User-Oriented Experimental Platform at ELI Beamlines. *Applied Sciences (Switzerland)*, **2018**, 8, 1565	2.6	6
74	Recoil effects on reflection from relativistic mirrors in laser plasmas. *Physics of Plasmas*, **2020**, 27, 032109	2.1	5

73	Synergic Cherenkov-Compton radiation. *Physical Review D*, **2019**, 100,	4.9	5
72	Ion acceleration and stability in the radiation pressure dominated regime. *Laser Physics*, **2009**, 19, 222-227	1.2	5
71	Structurally unstable magnetic configurations in the three-dimensional geometry. *Doklady Physics*, **2003**, 48, 216-220	0.8	5
70	Tearing instability of a force-free magnetic configuration in a collisionless plasma. *Plasma Physics Reports*, **2003**, 29, 449-458	1.2	5
69	Analysis on the longitudinal field strength formed by tightly-focused radially-polarized femtosecond petawatt laser pulse. *Optics Express*, **2018**, 26, 33091-33107	3.3	5
68	Relativistic slingshot: A source for single circularly polarized attosecond x-ray pulses. *Physical Review E*, **2020**, 102, 061201	2.4	5
67	Electromagnetic Burst Generation during Annihilation of Magnetic Field in Relativistic Laser-Plasma Interaction. *Scientific Reports*, **2019**, 9, 19462	4.9	5
66	Multiple colliding laser pulses as a basis for studying high-field high-energy physics. *Physical Review A*, **2019**, 100,	2.6	5
65	High-Order Harmonics from Laser Irradiated Electron Density Singularity Formed at the Bow Wave in the Laser Plasma. *Physics of Wave Phenomena*, **2019**, 27, 247-256	1.2	5
64	On annihilation of the relativistic electron vortex pair in collisionless plasmas. *Journal of Plasma Physics*, **2018**, 84,	2.7	5
63	Properties of finite amplitude electromagnetic waves propagating in the quantum vacuum. *Plasma Physics and Controlled Fusion*, **2019**, 61, 084002	2	4
62	Optical probing of relativistic plasma singularities. *Physics of Plasmas*, **2020**, 27, 052103	2.1	4
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