

# Stefan Hueller

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3742433/publications.pdf>

Version: 2024-02-01

85  
papers

1,960  
citations

236925

25  
h-index

265206

42  
g-index

86  
all docs

86  
docs citations

86  
times ranked

1284  
citing authors

#	ARTICLE	IF	CITATIONS
1	On the role of bandwidth in pump and seed light waves for stimulated Raman scattering in inhomogeneous plasmas. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	5
2	Frequency chirp effects on stimulated Raman scattering in inhomogeneous plasmas. <i>Physics of Plasmas</i> , 2022, 29, 072709.	1.9	2
3	Observation and modelling of stimulated Raman scattering driven by an optically smoothed laser beam in experimental conditions relevant for shock ignition. <i>High Power Laser Science and Engineering</i> , 2021, 9, .	4.6	13
4	Experimental investigation of the collective stimulated Brillouin and Raman scattering of multiple laser beams in inertial confinement fusion experiments. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 014024.	2.1	10
5	Crossed beam energy transfer between optically smoothed laser beams in inhomogeneous plasmas. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20200038.	3.4	11
6	Crossed beam energy transfer in the presence of laser speckle ponderomotive self-focusing and nonlinear sound waves. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	16
7	Fluid modeling of stimulated Raman scattering accounting for trapped particles benchmarked against fully kinetic simulations. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	5
8	Modeling of laser ponderomotive self-focusing in plasma within the paraxial complex geometrical optics approach. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 115009.	2.1	4
9	On the non-thermal nature of distributions of electrons accelerated by high intensity lasers at the vacuum-plasma interface. <i>Physics of Plasmas</i> , 2019, 26, 083107.	1.9	4
10	Enhancement and control of laser wakefields via a backward Raman amplifier. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	3
11	Impact of Laser Beam Speckle Structure on Crossed Beam Energy Transfer via Beam Deflections and Ponderomotive Self-Focusing. <i>Physical Review Letters</i> , 2017, 118, 055002.	7.8	19
12	Polarization modification of a spatially randomized picosecond-pulse beam during its amplification by a nanosecond pump. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	6
13	Control of Nonlinear Optical Processes in High Energy Density Plasmas Using Sub-Picosecond, High-Contrast, Temporal Modulations and Spatial Speckle-Pattern Scrambling. , 2017, , .		0
14	Simulation of laser-plasma interaction experiments with gas-filled hohlraums on the LIL facility. <i>Journal of Physics: Conference Series</i> , 2016, 688, 012059.	0.4	2
15	Experimental Investigation of the Collective Raman Scattering of Multiple Laser Beams in Inhomogeneous Plasmas. <i>Physical Review Letters</i> , 2016, 117, 235002.	7.8	38
16	Crossed beam energy transfer: Assessment of the paraxial complex geometrical optics approach versus a time-dependent paraxial method to describe experimental results. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	20
17	Modeling of energy transfer between two crossing smoothed laser beams in a plasma with flow profile. <i>Journal of Physics: Conference Series</i> , 2016, 717, 012096.	0.4	2
18	Spatial and Transient Effects during the Amplification of a Picosecond Pulse Beam by a Nanosecond Pump. <i>Physical Review Letters</i> , 2016, 117, 145001.	7.8	14

#	ARTICLE	IF	CITATIONS
19	Weibull-type speckle distributions as a result of saturation in stimulated scattering processes. <i>Laser and Particle Beams</i> , 2015, 33, 667-678.	1.0	2
20	Stimulated Brillouin scattering reduction induced by self-focusing for a single laser speckle interacting with an expanding plasma. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	15
21	Order statistics of high-intensity speckles in stimulated Brillouin scattering and plasma-induced laser beam smoothing. <i>New Journal of Physics</i> , 2013, 15, 025003.	2.9	10
22	Laser-plasma interaction physics for shock ignition. <i>EPJ Web of Conferences</i> , 2013, 59, 05006.	0.3	3
23	Optimal control of laser plasma instabilities using Spike Trains of Uneven Duration and Delay (STUD) Tj ETQq1 1 0.784314 rgBT /Overlo 0.3 34	0.3	34
24	Laser plasma interaction physics on the LIL facility. <i>EPJ Web of Conferences</i> , 2013, 59, 05003.	0.3	2
25	The dependence of spatial autoresonance in SRS onkL»D. <i>EPJ Web of Conferences</i> , 2013, 59, 05012.	0.3	2
26	Simulations of drastically reduced SBS with laser pulses composed of a Spike Train of Uneven Duration and Delay (STUD pulses). <i>EPJ Web of Conferences</i> , 2013, 59, 05010.	0.3	18
27	Driven Spatially Autoresonant Stimulated Raman Scattering in the Kinetic Regime. <i>Physical Review Letters</i> , 2012, 108, 145003.	7.8	33
28	MULTI-fs « A computer code for laser« plasma interaction in the femtosecond regime. <i>Computer Physics Communications</i> , 2012, 183, 637-655.	7.5	70
29	Interaction physics for the shock ignition scheme of inertial confinement fusion targets. <i>Plasma Physics and Controlled Fusion</i> , 2011, 53, 124034.	2.1	16
30	Laser-plasma interaction physics in multi kilojoule experiments. <i>Journal of Physics: Conference Series</i> , 2010, 244, 022021.	0.4	4
31	Extremal Properties for Weakly Correlated Random Variables Arising in Speckle Patterns. <i>Journal of Statistical Physics</i> , 2010, 138, 1010-1044.	1.2	3
32	Order statistics and extreme properties of spatially smoothed laser beams in laser-plasma interaction. <i>Laser and Particle Beams</i> , 2010, 28, 463-477.	1.0	11
33	Spatially autoresonant stimulated Raman scattering in inhomogeneous plasmas in the kinetic regime. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	22
34	Evolution of the stimulated Raman scattering instability in two-dimensional particle-in-cell simulations. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	47
35	Experimental Evidence of Short Light Pulse Amplification Using Strong-Coupling Stimulated Brillouin Scattering in the Pump Depletion Regime. <i>Physical Review Letters</i> , 2010, 104, 025001.	7.8	91
36	Experimental investigation of identical wavelength short light pulses crossing in underdense plasma. <i>Proceedings of SPIE</i> , 2009, , .	0.8	6

#	ARTICLE	IF	CITATIONS
37	Laser Smoothing and Imprint Reduction with a Foam Layer in the Multikilojoule Regime. Physical Review Letters, 2009, 102, 195005.	7.8	73
38	Modeling of stimulated Brillouin scattering in expanding plasmas. Journal of Physics: Conference Series, 2008, 112, 022031.	0.4	12
39	Basic mechanisms of laser high-order harmonic generation from plasma mirrors. Journal of Modern Optics, 2008, 55, 2711-2721.	1.3	8
40	Overview of on-going LIL experiments. Plasma Physics and Controlled Fusion, 2008, 50, 124017.	2.1	8
41	Optimization of some laser and target features for laser-plasma interaction in the context of fusion. Journal of Physics: Conference Series, 2008, 112, 022041.	0.4	3
42	Laser-plasma interaction in the context of inertial fusion: experiments and modeling. European Physical Journal D, 2007, 44, 283-288.	1.3	8
43	Harmonic decomposition to describe the nonlinear evolution of stimulated Brillouin scattering. Physics of Plasmas, 2006, 13, 022703.	1.9	50
44	Laser-Beam Smoothing Induced by Stimulated Brillouin Scattering in an Inhomogeneous Plasma. Physical Review Letters, 2006, 97, 205001.	7.8	30
45	Modeling parametric scattering instabilities in large-scale expanding plasmas. European Physical Journal Special Topics, 2006, 133, 247-251.	0.2	15
46	<title>Plasma diagnostics using high-order-harmonics generation</title>. , 2006, 5975, 24.		0
47	Probing Dense Plasmas Created from Intense Irradiation of Solid Target in the XUV Domain. AIP Conference Proceedings, 2006, , .	0.4	0
48	Studies on laser beam propagation and stimulated scattering in multiple beam experiments. European Physical Journal Special Topics, 2006, 133, 29-33.	0.2	5
49	Transient development of SRS and SBS in ps-time scale by Åusing sub-ps Thomson diagnostic. European Physical Journal Special Topics, 2006, 133, 259-263.	0.2	1
50	Kinetic effects in stimulated Brillouin scattering. European Physical Journal Special Topics, 2006, 133, 339-342.	0.2	4
51	Electron Kinetic Effects in the Nonlinear Evolution of a Driven Ion-Acoustic Wave. Physical Review Letters, 2005, 94, 055003.	7.8	30
52	Effect of electron collisions on transport coefficients induced by the inverse bremsstrahlung absorption in plasmas. Physics of Plasmas, 2005, 12, 032308.	1.9	2
53	Electron and ion kinetic effects in the saturation of a driven ion acoustic wave. Physics of Plasmas, 2005, 12, 112308.	1.9	18
54	Probing Hot and Dense Laser-Induced Plasmas with Ultrafast XUV Pulses. Physical Review Letters, 2005, 95, 025001.	7.8	38

#	ARTICLE	IF	CITATIONS
55	Laser-plasma interaction experiments in the context of inertial fusion. Plasma Physics and Controlled Fusion, 2004, 46, B301-B312.	2.1	13
56	Enhanced Spatiotemporal Laser-Beam Smoothing in Gas-Jet Plasmas. Physical Review Letters, 2003, 90, 075002.	7.8	30
57	Extra ion feature of Thomson scattered light in the interaction of a 600 ps laser with helium gas jet. Physics of Plasmas, 2003, 10, 495-501.	1.9	3
58	Femtosecond laser-guided electric discharge in air. Physical Review E, 2001, 64, 057401.	2.1	119
59	XUV interferometry using high-order harmonics: Application to plasma diagnostics. Laser and Particle Beams, 2001, 19, 35-40.	1.0	7
60	Stimulated Brillouin and Raman scattering from a randomized laser beam in large inhomogeneous collisional plasmas. II. Model description and comparison with experiments. Physics of Plasmas, 2001, 8, 1636-1649.	1.9	28
61	Nonlinear Propagation of a Randomized Laser Beam through an Expanding Plasma. Physical Review Letters, 2001, 87, 255003.	7.8	33
62	Pesme et al. Reply. Physical Review Letters, 2001, 86, 3687-3687.	7.8	3
63	Nouvelles perspectives de diagnostics de plasmas denses par génération d'harmoniques d'ordre élevé. European Physical Journal Special Topics, 2001, 11, Pr7-81-Pr7-86.	0.2	0
64	Coherence properties of high-order harmonics: Application to high-density laser-plasma diagnostic. Laser and Particle Beams, 2000, 18, 495-502.	1.0	9
65	Laser-plasma interaction physics in the context of fusion. Comptes Rendus Physique, 2000, 1, 727-735.	0.1	2
66	Experimental evidence of the effect of heat flux on Thomson scattering off ion acoustic waves. Physical Review E, 2000, 61, 1949-1953.	2.1	14
67	First Observation of Ion Acoustic Waves Produced by the Langmuir Decay Instability. Physical Review Letters, 2000, 84, 2869-2872.	7.8	52
68	Effects of Spatial and Temporal Smoothing on Stimulated Brillouin Scattering in the Independent-Hot-Spot Model Limit. Physical Review Letters, 2000, 85, 4526-4529.	7.8	30
69	Hydrodynamic simulation of subpicosecond laser interaction with solid-density matter. Physical Review E, 2000, 62, 1202-1214.	2.1	303
70	Strong self-focusing in quasi-stationary laser plasmas. Physics of Plasmas, 2000, 7, 4259.	1.9	11
71	Formation of plasma channels in the interaction of a nanosecond laser pulse at moderate intensities with helium gas jets. Physical Review E, 1999, 59, 7110-7120.	2.1	12
72	Preheating study by reflectivity measurements in laser-driven shocks. Physics of Plasmas, 1998, 5, 2410-2420.	1.9	52

#	ARTICLE	IF	CITATIONS
73	SBS reflectivity from spatially smoothed laser beams: Random phase plates versus polarization smoothing. <i>Physics of Plasmas</i> , 1998, 5, 2706-2711.	1.9	17
74	Interaction of two neighboring laser beams taking into account the effects of plasma hydrodynamics. <i>Physics of Plasmas</i> , 1997, 4, 2670-2680.	1.9	23
75	Channel Formation in Long Laser Pulse Interaction with a Helium Gas Jet. <i>Physical Review Letters</i> , 1997, 79, 2979-2982.	7.8	44
76	Effect of the speckle self-focusing on the stationary stimulated Brillouin scattering reflectivity from a randomized laser beam in an inhomogeneous plasma. <i>Physics of Plasmas</i> , 1997, 4, 4369-4381.	1.9	35
77	Numerical simulation of filamentation and its interplay with SBS in underdense plasmas. <i>Physica Scripta</i> , 1996, T63, 151-157.	2.5	26
78	Self-consistent plasma profile steepening in presence of laser light with mixed polarization. <i>Physics of Plasmas</i> , 1994, 1, 4061-4075.	1.9	4
79	Uniform multimegabar shock waves in solids driven by laser-generated thermal radiation. <i>Physical Review Letters</i> , 1994, 72, 3186-3189.	7.8	128
80	Exploring Dense Plasma by Laser Compression. A simulation study. <i>Contributions To Plasma Physics</i> , 1993, 33, 553-562.	1.1	1
81	High-order harmonic radiation from solid layers irradiated by subpicosecond laser pulses. <i>Physical Review A</i> , 1993, 48, 3906-3909.	2.5	22
82	Time-resolved absorption spectroscopy as a diagnostic of the thermal front zone of laser-illuminated thin plastic foils. <i>Physics of Fluids B</i> , 1992, 4, 1006-1011.	1.7	0
83	Resonance Absorption by Nonlinear Electron Plasma Waves. <i>Europhysics Letters</i> , 1991, 14, 661-666.	2.0	9
84	Nonstationary stimulated Brillouin backscattering. <i>Physics of Fluids B</i> , 1991, 3, 3339-3352.	1.7	27
85	Stimulated Brillouin scattering off nonlinear ion acoustic waves. <i>Physics of Fluids B</i> , 1991, 3, 3317-3330.	1.7	27