

Lothar Schmitz

List of Publications by Year in descending order

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39
papers

1,502
citations

304368

22
h-index

315357

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39
docs citations

39
times ranked

1008
citing authors

#	ARTICLE	IF	CITATIONS
1	Role of Zonal Flow Predator-Prey Oscillations in Triggering the Transition to H-Mode Confinement. Physical Review Letters, 2012, 108, 155002.	2.9	245
2	Implementation and application of two synthetic diagnostics for validating simulations of core tokamak turbulence. Physics of Plasmas, 2009, 16, .	0.7	119
3	Spatio-temporal evolution of the L to H transition. Physics of Plasmas, 2012, 19, .	0.7	117
4	L-mode validation studies of gyrokinetic turbulence simulations via multiscale and multifield turbulence measurements on the DIII-D tokamak. Nuclear Fusion, 2011, 51, 063022.	1.6	92
5	Dependence of the L- to H-mode power threshold on toroidal rotation and the link to edge turbulence dynamics. Nuclear Fusion, 2009, 49, 115016.	1.6	70
6	Advances in validating gyrokinetic turbulence models against L- and H-mode plasmas. Physics of Plasmas, 2011, 18, 056113.	0.7	69
7	Experimental investigation of geodesic acoustic mode spatial structure, intermittency, and interaction with turbulence in the DIII-D tokamak. Physics of Plasmas, 2012, 19, .	0.7	66
8	The role of turbulence flow interactions in L- to H-mode transition dynamics: recent progress. Nuclear Fusion, 2017, 57, 025003.	1.6	63
9	Formation of a long-lived hot field reversed configuration by dynamically merging two colliding high- β^2 compact toroids. Physics of Plasmas, 2011, 18, .	0.7	56
10	Observation of a Critical Gradient Threshold for Electron Temperature Fluctuations in the DIII-D Tokamak. Physical Review Letters, 2013, 110, 045003.	2.9	43
11	A new high performance field reversed configuration operating regime in the C-2 device. Physics of Plasmas, 2012, 19, .	0.7	42
12	Multi-field characteristics and eigenmode spatial structure of geodesic acoustic modes in DIII-D L-mode plasmas. Physics of Plasmas, 2013, 20, .	0.7	42
13	New plasma measurements with a multichannel millimeter-wave fluctuation diagnostic system in the DIII-D tokamak (invited). Review of Scientific Instruments, 2010, 81, 10D907.	0.6	38
14	Detection of zonal flow spectra in DIII-D by a dual-channel Doppler backscattering system. Review of Scientific Instruments, 2008, 79, 10F113.	0.6	36
15	Progress in GYRO validation studies of DIII-D H-mode plasmas. Nuclear Fusion, 2012, 52, 114007.	1.6	33
16	New glance at resistive ballooning modes at the edge of tokamak plasmas. Plasma Physics and Controlled Fusion, 2012, 54, 115003.	0.9	33
17	Suppressed ion-scale turbulence in a hot high- β^2 plasma. Nature Communications, 2016, 7, 13860.	5.8	31
18	The role of zonal flows and predator-prey oscillations in triggering the formation of edge and core transport barriers. Nuclear Fusion, 2014, 54, 073012.	1.6	27

#	ARTICLE	IF	CITATIONS
19	Simultaneous measurement of core electron temperature and density fluctuations during electron cyclotron heating on DIII-D. <i>Physics of Plasmas</i> , 2010, 17, .	0.7	26
20	Overview of C-2W: high temperature, steady-state beam-driven field-reversed configuration plasmas. <i>Nuclear Fusion</i> , 2021, 61, 106039.	1.6	26
21	Ballooning instability preventing the H-mode access in plasmas with negative triangularity shape on the DIII-D tokamak. <i>Plasma Physics and Controlled Fusion</i> , 2021, 63, 105006.	0.9	25
22	Validation studies of gyrofluid and gyrokinetic predictions of transport and turbulence stiffness using the DIII-D tokamak. <i>Nuclear Fusion</i> , 2013, 53, 083027.	1.6	22
23	Observation of Reduced Electron-Temperature Fluctuations in the Core of H-Mode Plasmas. <i>Physical Review Letters</i> , 2008, 100, 035002.	2.9	20
24	L-H transition trigger physics in ITER-similar plasmas with applied n magnetic perturbations. <i>Nuclear Fusion</i> , 2019, 59, 126010.	1.8	20
25	Diverted negative triangularity plasmas on DIII-D: the benefit of high confinement without the liability of an edge pedestal. <i>Nuclear Fusion</i> , 2021, 61, 116010.	1.6	20
26	Effect of magnetic perturbations on turbulence-flow dynamics at the L-H transition on DIII-D. <i>Physics of Plasmas</i> , 2020, 27, 062507.	0.7	18
27	Effects of resonant magnetic perturbations on turbulence and transport in DIII-D L-mode plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2016, 58, 014003.	0.9	16
28	Multi-channel Doppler backscattering measurements in the C-2 field reversed configuration. <i>Review of Scientific Instruments</i> , 2014, 85, 11D840.	0.6	14
29	Time-dependent probability density functions and information diagnostics in forward and backward processes in a stochastic prey-predator model of fusion plasmas. <i>Physics of Plasmas</i> , 2020, 27, .	0.7	14
30	Gyrokinetic GENE simulations of DIII-D near-edge L-mode plasmas. <i>Physics of Plasmas</i> , 2019, 26, .	0.7	11
31	DIII-D research advancing the physics basis for optimizing the tokamak approach to fusion energy. <i>Nuclear Fusion</i> , 2022, 62, 042024.	1.6	11
32	Multi-field/multi-scale turbulence response to electron cyclotron heating of DIII-D ohmic plasmas. <i>Physics of Plasmas</i> , 2011, 18, 082504.	0.7	8
33	Effects of radial transport on divertor power and particle flux widths under different operational regimes in EAST. <i>Nuclear Fusion</i> , 2021, 61, 106015.	1.6	8
34	Improved Confinement of C-2 Field-Reversed Configuration Plasmas. <i>Fusion Science and Technology</i> , 2015, 68, 44-49.	0.6	7
35	Evolution of E _z shear and coherent fluctuations prior to H-L transitions in DIII-D and control strategies for H-L transitions. <i>Physics of Plasmas</i> , 2015, 22, .	0.7	5
36	A High Performance Field-Reversed Configuration Regime in the C-2 Device. <i>Fusion Science and Technology</i> , 2013, 63, 139-142.	0.6	3

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37	Combination Doppler backscattering/cross-polarization scattering diagnostic for the C-2W field-reversed configuration. Review of Scientific Instruments, 2018, 89, 10H116.	0.6	3
38	Safety factor and turbulence dynamics dependence of the L-H power threshold on DIII-D. Physics of Plasmas, 2019, 26, 062507.	0.7	3
39	Intermittent turbulence and turbulent structures in LAPD and ET. AIP Conference Proceedings, 2006, , .	0.3	0