Zheng Yan

List of Publications by Year
in descending order

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Version: 2024-02-01

61	1,629	236925	302126
papers	citations	25 h-index	39 g-index

61	61	61	1244
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhanced H-mode pedestals with lithium injection in DIII-D. Nuclear Fusion, 2015, 55, 063018.	3.5	123
2	Turbulent-driven low-frequency shearedEÃ—Bflows as the trigger for the H-mode transition. Nuclear Fusion, 2013, 53, 073053.	3.5	101
3	Observation of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>L</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>H</mml:mi></mml:mrow></mml:math>Con Bifurcation Triggered by a Turbulence-Driven Shear Flow in a Tokamak Plasma. Physical Review Letters, 2014, 112, 125002.	7.8	91
4	Increase of turbulence and transport with resonant magnetic perturbations in ELM-suppressed plasmas on DIII-D. Nuclear Fusion, 2013, 53, 113011.	3.5	73
5	Advances in validating gyrokinetic turbulence models against L- and H-mode plasmas. Physics of Plasmas, 2011, 18, 056113.	1.9	69
6	High-Frequency Coherent Edge Fluctuations in a High-Pedestal-Pressure Quiescent H-Mode Plasma. Physical Review Letters, 2011, 107, 055004.	7.8	60
7	Improved understanding of physics processes in pedestal structure, leading to improved predictive capability for ITER. Nuclear Fusion, 2013, 53, 093024.	3.5	59
8	Discovery of stationary operation of quiescent H-mode plasmas with net-zero neutral beam injection torque and high energy confinement on DIII-D. Physics of Plasmas, 2016, 23, .	1.9	59
9	Study of nonlinear spectral energy transfer in frequency domain. Physics of Plasmas, 2009, 16, .	1.9	50
10	Global Gyrokinetic Simulation of Tokamak Edge Pedestal Instabilities. Physical Review Letters, 2012, 109, 185004.	7.8	48
11	Pedestal width and ELM size identity studies in JET and DIII-D; implications for ITER. Plasma Physics and Controlled Fusion, 2009, 51, 124051.	2.1	44
12	Generation of a Sheared Plasma Rotation by Emission, Propagation, and Absorption of Drift Wave Packets. Physical Review Letters, 2011, 107, 055003.	7.8	38
13	Pedestal density fluctuation dynamics during the inter-ELM cycle in DIII-D. Physics of Plasmas, 2011, 18, 056117.	1.9	38
14	Statistical analysis of the turbulent Reynolds stress and its link to the shear flow generation in a cylindrical laboratory plasma device. Physics of Plasmas, 2008, 15, .	1.9	37
15	Intrinsic Rotation from a Residual Stress at the Boundary of a Cylindrical Laboratory Plasma. Physical Review Letters, 2010, 104, 065002.	7.8	36
16	Stationary QH-mode plasmas with high and wide pedestal at low rotation on DIII-D. Nuclear Fusion, 2017, 57, 022007.	3.5	36
17	Fourier-domain study of drift turbulence driven sheared flow in a laboratory plasma. Physics of Plasmas, 2010, 17, 032311.	1.9	35
18	Wide-field turbulence imaging with beam emission spectroscopy. Review of Scientific Instruments, 2010, 81, 10D741.	1.3	35

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19	Energetic ion transport by microturbulence is insignificant in tokamaks. Physics of Plasmas, 2013, 20, 056108.	1.9	35
20	Probing plasma turbulence by modulating the electron temperature gradient. Physics of Plasmas, 2010, 17, .	1.9	32
21	Rotational shear effects on edge harmonic oscillations in DIII-D quiescent H-mode discharges. Nuclear Fusion, 2016, 56, 076011.	3.5	28
22	Examination of the velocity time-delay-estimation technique. Journal of Nuclear Materials, 2007, 363-365, 728-732.	2.7	27
23	The role of zonal flows and predatorâ€“prey oscillations in triggering the formation of edge and core transport barriers. Nuclear Fusion, 2014, 54, 073012.	3.5	27
24	Overview of HL-2A recent experiments. Nuclear Fusion, 2019, 59, 112017.	3.5	27
25	Shear flow and drift wave turbulence dynamics in a cylindrical plasma device. Physics of Plasmas, 2010, 17, 032302.	1.9	26
26	Bifurcation of quiescent H-mode to a wide pedestal regime in DIII-D and advances in the understanding of edge harmonic oscillations. Nuclear Fusion, 2017, 57, 086008.	3.5	26
27	Turbulence and sheared flow structures behind the isotopic dependence of the L-H power threshold on DIII-D. Nuclear Fusion, 2017, 57, 126015.	3.5	25
28	Global gyrokinetic simulations of the H-mode tokamak edge pedestal. Physics of Plasmas, 2013, 20, .	1.9	23
29	Initial beam emission spectroscopy diagnostic system on HL-2A tokamak. Review of Scientific Instruments, 2018, 89, 10D122.	1.3	22
30	Experimental characterization of multiscale and multifield turbulence as a critical gradient threshold is surpassed in the DIII-D tokamak. Physics of Plasmas, 2013, 20, .	1.9	21
31	Lâ€“H transition trigger physics in ITER-similar plasmas with applied nâ€‰=â€‰3 magnetic perturbations. Nuclear Fusion, 2019, 59, 126010.	3.5	20
32	Diverted negative triangularity plasmas on DIII-D: the benefit of high confinement without the liability of an edge pedestal. Nuclear Fusion, 2021, 61, 116010.	3.5	20
33	Increased electron temperature turbulence during suppression of edge localized mode by resonant magnetic perturbations in the DIII-D tokamak. Physics of Plasmas, 2017, 24, .	1.9	19
34	Effect of magnetic perturbations on turbulence-flow dynamics at the L-H transition on DIII-D. Physics of Plasmas, 2020, 27, 062507.	1.9	18
35	Simulations of drift resistive ballooning L-mode turbulence in the edge plasma of the DIII-D tokamak. Physics of Plasmas, 2013, 20, .	1.9	17
36	Effects of divertor geometry on H-mode pedestal structure in attached and detached plasmas in the DIII-D tokamak. Nuclear Fusion, 2018, 58, 096014.	3.5	17

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37	Internal measurement of magnetic turbulence in ELMy H-mode tokamak plasmas. Physics of Plasmas, 2020, 27, .	1.9	17
38	Pedestal magnetic turbulence measurements in ELMy H-mode DIII-D plasmas by Faraday-effect polarimetry. Physics of Plasmas, 2021, 28, .	1.9	16
39	The dominant micro-turbulence instabilities in the lower q ₉₅ high Î² _p plasmas on DIII-D and predict-first extrapolation. Nuclear Fusion, 2020, 60, 016023.	3.5	12
40	Gyrokinetic GENE simulations of DIII-D near-edge L-mode plasmas. Physics of Plasmas, 2019, 26, .	1.9	11
41	Expanding the parameter space of the wide-pedestal QH-mode towards ITER conditions. Nuclear Fusion, 2020, 60, 092006.	3.5	10
42	Nonlinear dynamics of shear flows and plasma rotation in a simple laboratory plasma system. Plasma Physics and Controlled Fusion, 2009, 51, 124055.	2.1	9
43	Scaling properties of turbulence driven shear flow. Physics of Plasmas, 2010, 17, 012302.	1.9	9
44	Simulation of density fluctuations before the L-H transition for Hydrogen and Deuterium plasmas in the DIII-D tokamak using the BOUT++ code. Nuclear Fusion, 2018, 58, 026026.	3.5	9
45	Observation of fully detached divertor integrated with improved core confinement for tokamak fusion plasmas. Physics of Plasmas, 2021, 28, .	1.9	9
46	Ion thermal transport in the H-mode edge transport barrier on DIII-D. Physics of Plasmas, 2022, 29, .	1.9	9
47	Extracting the turbulent flow-field from beam emission spectroscopy images using velocimetry. Review of Scientific Instruments, 2018, 89, 10E107.	1.3	8
48	Evidence of Eâ€ˆÃ—â€ˆB staircase in HL-2A L-mode tokamak discharges. Physics of Plasmas, 2021, 28, .	1.9	8
49	Towards validated MHD modeling of edge harmonic oscillation in DIII-D QH-mode discharges. Nuclear Fusion, 2020, 60, 092004.	3.5	7
50	Evolution of Eâ€‰Ã—â€‰B shear and coherent fluctuations prior to H-L transitions in DIII-D and control strategies for H-L transitions. Physics of Plasmas, 2015, 22, .	1.9	5
51	Experimental characterization of the effect of E Ã— B shear on edge-harmonic oscillation mode structure. Plasma Physics and Controlled Fusion, 2019, 61, 085003.	2.1	5
52	New understanding of inter-ELM pedestal turbulence, transport, and gradient behavior in the DIII-D tokamak. Nuclear Fusion, 2021, 61, 126037.	3.5	5
53	Relating the Lâ€“H power threshold scaling to edge turbulence dynamics. Nuclear Fusion, 2013, 53, 113038.	3.5	4
54	Safety factor and turbulence dynamics dependence of the L-H power threshold on DIII-D. Physics of Plasmas, 2019, 26, 062507.	1.9	3

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55	Development of a 32-channel Beam Emission Spectroscopy diagnostic based on Neutral Beam Injection on HL-2A tokamak. Fusion Engineering and Design, 2020, 156, 111734.	1.9	3
56	Numerical modeling of pedestal stability and broadband turbulence of wide-pedestal QH-mode plasmas on DIII-D. Nuclear Fusion, 2022, 62, 076033.	3.5	3
57	Simulation of neutral beam attenuation and its influence to beam emission spectroscopy diagnostic on HL-2A tokamak. Journal of Instrumentation, 2018, 13, P10026-P10026.	1.2	2
58	The Physics of Zonal Flow-Drift Wave Turbulence Interactions: A Synthesis of Time-domain, Fourier Domain, and Direct Visualization Studies. , 2009, , .		1
59	Turbulence evolution and transport behavior during current ramp-up in ITER-like plasmas on DIII-D. Nuclear Fusion, 2017, 57, 086032.	3.5	1
60	Ion temperature and rotation fluctuation measurements with ultra-fast charge exchange recombination spectroscopy (UF-CHERS) in the DIII-D tokamak. Review of Scientific Instruments, 2021, 92, 053513.	1.3	1
61	Physics of increased edge electron temperature and density turbulence during ELM-free QH-mode operation on DIII-D. Physics of Plasmas, 2018, 25, 055904.	1.9	0