

# Lei Zeng

## List of Publications by Year in descending order

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34  
papers

1,072  
citations

430754

18  
h-index

395590

33  
g-index

35  
all docs

35  
docs citations

35  
times ranked

1047  
citing authors

#	ARTICLE	IF	CITATIONS
1	Explaining the lack of power degradation of energy confinement in wide pedestal quiescent H-modes via transport modeling. Nuclear Fusion, 2022, 62, 056024.	1.6	1
2	Performance demonstration of vacuum microwave components critical for the operation of the ITER low-field side reflectometer. Review of Scientific Instruments, 2021, 92, 033524.	0.6	2
3	Evolution of ELMs, pedestal profiles and fluctuations in the inter-ELM period in NBI- and ECH-dominated discharges in DIII-D. Nuclear Fusion, 2021, 61, 056008.	1.6	7
4	New methodology for measuring electron density perturbations caused by plasma coherent modes using profile reflectometry: Magnitudes and radial profiles in DIII-D. Review of Scientific Instruments, 2021, 92, 043550.	0.6	1
5	Predict-first experiments and modeling of perturbative cold pulses in the DIII-D tokamak. Physics of Plasmas, 2019, 26, .	0.7	14
6	Long-lived predator-prey dynamics in the pedestal of near-zero torque high performance DIII-D plasmas. Physics of Plasmas, 2019, 26, 092501.	0.7	6
7	H-mode grade confinement in L-mode edge plasmas at negative triangularity on DIII-D. Physics of Plasmas, 2019, 26, .	0.7	38
8	Helical variation of density profiles and fluctuations in the tokamak pedestal with applied 3D fields and implications for confinement. Physics of Plasmas, 2018, 25, .	0.7	6
9	Quasistationary Plasma Predator-Prey System of Coupled Turbulence, Drive, and Sheared $E - \mathbf{v} \times \mathbf{B}$ Flow During High Performance DIII-D Tokamak Discharges. Physical Review Letters, 2018, 120, 135002.	0.7	9
10	A free-standing wire scattering technique to monitor calibration variations of the DIII-D density profile reflectometer. Review of Scientific Instruments, 2018, 89, 10H112.	0.6	3
11	Understanding ECH density pump-out in DIII-D H-mode plasmas. Nuclear Fusion, 2017, 57, 116046.	1.6	7
12	Increased electron temperature turbulence during suppression of edge localized mode by resonant magnetic perturbations in the DIII-D tokamak. Physics of Plasmas, 2017, 24, .	0.7	19
13	A novel technique for real-time estimation of edge pedestal density gradients via reflectometer time delay data. Review of Scientific Instruments, 2016, 87, 11E719.	0.6	0
14	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, .	0.7	59
15	Particle transport in low-collisionality H-mode plasmas on DIII-D. Nuclear Fusion, 2015, 55, 113025.	1.6	20
16	Performance and data analysis aspects of the new DIII-D monostatic profile reflectometer system. Review of Scientific Instruments, 2014, 85, 11D843.	0.6	21
17	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
18	Experimental validation of Mueller-Stokes theory and investigation of the influence of the Cotton-Mouton effect on polarimetry in a magnetized fusion plasma. Physics of Plasmas, 2013, 20, 102519.	0.7	2

#	ARTICLE	IF	CITATIONS
19	Observation of a Critical Gradient Threshold for Electron Temperature Fluctuations in the DIII-D Tokamak. <i>Physical Review Letters</i> , 2013, 110, 045003.	2.9	43
20	Changes in particle transport as a result of resonant magnetic perturbations in DIII-D. <i>Physics of Plasmas</i> , 2012, 19, .	0.7	35
21	Role of Zonal Flow Predator-Prey Oscillations in Triggering the Transition to H-Mode Confinement. <i>Physical Review Letters</i> , 2012, 108, 155002.	2.9	245
22	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
23	A novel, multichannel, comb-frequency Doppler backscatter system. <i>Review of Scientific Instruments</i> , 2010, 81, 10D902.	0.6	89
24	Fast automated analysis of high-resolution reflectometer density profiles on DIII-D. <i>Nuclear Fusion</i> , 2006, 46, S677-S684.	1.6	34
25	Millimeter-wave backscatter diagnostic for the study of short scale length plasma fluctuations (invited). <i>Review of Scientific Instruments</i> , 2006, 77, 10E922.	0.6	43
26	Advances in understanding quiescent H-mode plasmas in DIII-D. <i>Physics of Plasmas</i> , 2005, 12, 056121.	0.7	119
27	Dynamics of pedestal perturbations by ELMs and edge harmonic oscillations in DIII-D. <i>Plasma Physics and Controlled Fusion</i> , 2004, 46, A121-A129.	0.9	33
28	High-resolution dual-polarization frequency modulated reflectometer density profile measurements on DIII-D. <i>Review of Scientific Instruments</i> , 2004, 75, 3800-3803.	0.6	20
29	Improved reflectometer electron density profile measurements on DIII-D. <i>Review of Scientific Instruments</i> , 2003, 74, 1525-1529.	0.6	23
30	Comparison of turbulence measurements from DIII-D low-mode and high-performance plasmas to turbulence simulations and models. <i>Physics of Plasmas</i> , 2002, 9, 2141-2148.	0.7	64
31	Implementation of reflectometry as a standard density profile diagnostic on DIII-D. <i>Review of Scientific Instruments</i> , 2001, 72, 320-323.	0.6	21
32	Core reflectometer density profile measurements on DIII-D. <i>Review of Scientific Instruments</i> , 1999, 70, 1064-1067.	0.6	18
33	Multichannel far-infrared polarimeter system on TEXT-Upgrade. <i>Review of Scientific Instruments</i> , 1997, 68, 419-421.	0.6	9
34	Novel internal measurements of ion cyclotron frequency range fast-ion driven modes. <i>Nuclear Fusion</i> , 0, , .	1.6	10