

Lei Zeng

List of Publications by Year in descending order

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Version: 2024-02-01

34
papers

1,072
citations

430442

18
h-index

395343

33
g-index

35
all docs

35
docs citations

35
times ranked

1047
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | 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 |
| 2 | Advances in understanding quiescent H-mode plasmas in DIII-D. <i>Physics of Plasmas</i> , 2005, 12, 056121. | 0.7 | 119 |
| 3 | A novel, multichannel, comb-frequency Doppler backscatter system. <i>Review of Scientific Instruments</i> , 2010, 81, 10D902. | 0.6 | 89 |
| 4 | 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 |
| 5 | Discovery of stationary operation of quiescent H-mode plasmas with net-zero neutral beam injection torque and high energy confinement on DIII-D. <i>Physics of Plasmas</i> , 2016, 23, . | 0.7 | 59 |
| 6 | 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 |
| 7 | 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 |
| 8 | Multi-field characteristics and eigenmode spatial structure of geodesic acoustic modes in DIII-D L-mode plasmas. <i>Physics of Plasmas</i> , 2013, 20, . | 0.7 | 42 |
| 9 | H-mode grade confinement in L-mode edge plasmas at negative triangularity on DIII-D. <i>Physics of Plasmas</i> , 2019, 26, . | 0.7 | 38 |
| 10 | Changes in particle transport as a result of resonant magnetic perturbations in DIII-D. <i>Physics of Plasmas</i> , 2012, 19, . | 0.7 | 35 |
| 11 | Fast automated analysis of high-resolution reflectometer density profiles on DIII-D. <i>Nuclear Fusion</i> , 2006, 46, S677-S684. | 1.6 | 34 |
| 12 | 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 |
| 13 | Improved reflectometer electron density profile measurements on DIII-D. <i>Review of Scientific Instruments</i> , 2003, 74, 1525-1529. | 0.6 | 23 |
| 14 | 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 |
| 15 | Performance and data analysis aspects of the new DIII-D monostatic profile reflectometer system. <i>Review of Scientific Instruments</i> , 2014, 85, 11D843. | 0.6 | 21 |
| 16 | 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 |
| 17 | Particle transport in low-collisionality H-mode plasmas on DIII-D. <i>Nuclear Fusion</i> , 2015, 55, 113025. | 1.6 | 20 |
| 18 | Increased electron temperature turbulence during suppression of edge localized mode by resonant magnetic perturbations in the DIII-D tokamak. <i>Physics of Plasmas</i> , 2017, 24, . | 0.7 | 19 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Core reflectometer density profile measurements on DIII-D. Review of Scientific Instruments, 1999, 70, 1064-1067. | 0.6 | 18 |
| 20 | Predict-first experiments and modeling of perturbative cold pulses in the DIII-D tokamak. Physics of Plasmas, 2019, 26, . | 0.7 | 14 |
| 21 | Novel internal measurements of ion cyclotron frequency range fast-ion driven modes. Nuclear Fusion, 0, , . | 1.6 | 10 |
| 22 | Multichannel far-infrared polarimeter system on TEXT-Upgrade. Review of Scientific Instruments, 1997, 68, 419-421. | 0.6 | 9 |
| 23 | Quasistationary Plasma Predator-Prey System of Coupled Turbulence, Drive, and Sheared $\langle \text{mml:mrow} \langle \text{mml:mi} \rangle E \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle \tilde{A} - \langle \text{mml:mo} \rangle \langle \text{mml:mi} \rangle B \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \langle \text{mml:math} \rangle$ Flow During High Performance DIII-D Tokamak Discharges. Physical Review Letters, 2018, 120, 135002. | 2.9 | 9 |
| 24 | Multi-field/multi-scale turbulence response to electron cyclotron heating of DIII-D ohmic plasmas. Physics of Plasmas, 2011, 18, 082504. | 0.7 | 8 |
| 25 | Understanding ECH density pump-out in DIII-D H-mode plasmas. Nuclear Fusion, 2017, 57, 116046. | 1.6 | 7 |
| 26 | 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 |
| 27 | 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 |
| 28 | 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 |
| 29 | 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 |
| 30 | 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 |
| 31 | 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 |
| 32 | 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 |
| 33 | 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 |
| 34 | 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 |