G R Mckee

List of Publications by Year in descending order

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125 papers	5,204 citations	66234 42 h-index	95083 68 g-index
127 all docs	127 docs citations	127 times ranked	1962 citing authors

#	Article	IF	Citations
1	Transport by intermittent convection in the boundary of the DIII-D tokamak. Physics of Plasmas, 2001, 8, 4826-4833.	0.7	322
2	Quiescent double barrier high-confinement mode plasmas in the DIII-D tokamak. Physics of Plasmas, 2001, 8, 2153-2162.	0.7	190
3	The beam emission spectroscopy diagnostic on the DIII-D tokamak. Review of Scientific Instruments, 1999, 70, 913-916.	0.6	183
4	Experimental characterization of coherent, radially-sheared zonal flows in the DIII-D tokamak. Physics of Plasmas, 2003, 10, 1712-1719.	0.7	168
5	Quiescent H-mode plasmas in the DIII-D tokamak. Plasma Physics and Controlled Fusion, 2002, 44, A253-A263.	0.9	149
6	A review of experimental drift turbulence studies. Plasma Physics and Controlled Fusion, 2009, 51, 113001.	0.9	142
7	Pedestal Bifurcation and Resonant Field Penetration at the Threshold of Edge-Localized Mode Suppression in the DIII-D Tokamak. Physical Review Letters, 2015, 114, 105002.	2.9	141
8	Implementation and application of two synthetic diagnostics for validating simulations of core tokamak turbulence. Physics of Plasmas, 2009, 16, .	0.7	119
9	Observation of Coherent Sheared Turbulence Flows in the DIII-D Tokamak. Physical Review Letters, 2002, 89, 265003.	2.9	114
10	Edge localized mode control with an edge resonant magnetic perturbation. Physics of Plasmas, 2005, 12, 056119.	0.7	109
11	Measurements of core electron temperature and density fluctuations in DIII-D and comparison to nonlinear gyrokinetic simulations. Physics of Plasmas, 2008, 15, .	0.7	102
12	Structure and scaling properties of the geodesic acoustic mode. Plasma Physics and Controlled Fusion, 2006, 48, S123-S136.	0.9	98
13	Validation in fusion research: Towards guidelines and best practices. Physics of Plasmas, 2008, 15, .	0.7	92
14	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.	2.9	91
15	Observation and characterization of radially sheared zonal flows in DIII-D. Plasma Physics and Controlled Fusion, 2003, 45, A477-A485.	0.9	90
16	Measurements and modeling of AlfvÃ©n eigenmode induced fast ion transport and loss in DIII-D and ASDEX Upgrade. Physics of Plasmas, 2011, 18, .	0.7	90
17	Achievement of Reactor-Relevant Performance in Negative Triangularity Shape in the DIII-D Tokamak. Physical Review Letters, 2019, 122, 115001.	2.9	86
18	Detection of Zero-Mean-Frequency Zonal Flows in the Core of a High-Temperature Tokamak Plasma. Physical Review Letters, 2006, 97, 125002.	2.9	84

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19	Measurements of the cross-phase angle between density and electron temperature fluctuations and comparison with gyrokinetic simulations. Physics of Plasmas, 2010, 17, 056103.	0.7	77
20	Turbulence imaging and applications using beam emission spectroscopy on DIII-D (invited). Review of Scientific Instruments, 2003, 74, 2014-2019.	0.6	76
21	Core barrier formation near integer q surfaces in DIII-D. Physics of Plasmas, 2006, 13, 082502.	0.7	73
22	Advances in validating gyrokinetic turbulence models against L- and H-mode plasmas. Physics of Plasmas, 2011, 18, 056113.	0.7	69
23	Modulation of Core Turbulent Density Fluctuations by Large-Scale Neoclassical Tearing Mode Islands in the DIII-D Tokamak. Physical Review Letters, 2016, 116, 215001.	2.9	69
24	SlowLâ˜HTransitions in DIII-D Plasmas. Physical Review Letters, 2002, 88, 255002.	2.9	68
25	Edge-localized mode dynamics and transport in the scrape-off layer of the DIII-D tokamak. Physics of Plasmas, 2005, 12, 072516.	0.7	66
26	Tempest Simulations of Collisionless Damping of the Geodesic-Acoustic Mode in Edge-Plasma Pedestals. Physical Review Letters, 2008, 100, 215001.	2.9	63
27	Impurity-induced turbulence suppression and reduced transport in the DIII-D tokamak. Physics of Plasmas, 2000, 7, 1870-1877.	0.7	60
28	Impurity-Induced Suppression of Core Turbulence and Transport in the DIII-D Tokamak. Physical Review Letters, 2000, 84, 1922-1925.	2.9	59
29	Experimental evidence of long-range correlations and self-similarity in plasma fluctuations. Physics of Plasmas, 1999, 6, 1885-1892.	0.7	57
30	Turbulence velocimetry of density fluctuation imaging data. Review of Scientific Instruments, 2004, 75, 3490-3492.	0.6	56
31	Overview of physics results from the conclusive operation of the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 104007.	1.6	53
32	Confined Alpha Distribution Measurements in a Deuterium-Tritium Tokamak Plasma. Physical Review Letters, 1995, 75, 649-652.	2.9	52
33	Large-scale behavior of the tokamak density fluctuations. Physics of Plasmas, 2000, 7, 3691-3698.	0.7	52
34	Zonal-flow-driven nonlinear energy transfer in experiment and simulation. Physics of Plasmas, 2007, 14, 056112.	0.7	50
35	Understanding and control of transport in Advanced Tokamak regimes in DIII-D. Physics of Plasmas, 2000, 7, 1959-1967.	0.7	49
36	Observation of simultaneous internal transport barriers in all four transport channels and correlation with turbulence behaviour in NCS discharges on DIII-D. Plasma Physics and Controlled Fusion, 2000, 42, A237-A246.	0.9	47

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37	Enhanced sensitivity beam emission spectroscopy system for nonlinear turbulence measurements. Review of Scientific Instruments, 2004, 75, 3493-3495.	0.6	47
38	Multi-field/-scale interactions of turbulence with neoclassical tearing mode magnetic islands in the DIII-D tokamak. Physics of Plasmas, 2017, 24, .	0.7	46
39	Overview of NSTX Upgrade initial results and modelling highlights. Nuclear Fusion, 2017, 57, 102006.	1.6	45
40	A correlation electron cyclotron emission diagnostic and the importance of multifield fluctuation measurements for testing nonlinear gyrokinetic turbulence simulations. Review of Scientific Instruments, 2008, 79, 103505.	0.6	44
41	Wavelet-based time-delay estimation for time-resolved turbulent flow analysis. Review of Scientific Instruments, 2001, 72, 996-999.	0.6	43
42	Observation of a Critical Gradient Threshold for Electron Temperature Fluctuations in the DIII-D Tokamak. Physical Review Letters, 2013, 110, 045003.	2.9	43
43	Validation of the model for ELM suppression with 3D magnetic fields using low torque ITER baseline scenario discharges in DIII-D. Physics of Plasmas, 2017, 24, .	0.7	43
44	Optimizing stability, transport, and divertor operation through plasma shaping for steady-state scenario development in DIII-D. Physics of Plasmas, 2009, 16, .	0.7	42
45	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
46	Confinement improvement in the high poloidal beta regime on DIII-D and application to steady-state H-mode on EAST. Physics of Plasmas, 2017, 24, .	0.7	41
47	2D properties of core turbulence on DIII-D and comparison to gyrokinetic simulations. Physics of Plasmas, 2012, 19, .	0.7	40
48	Pedestal density fluctuation dynamics during the inter-ELM cycle in DIII-D. Physics of Plasmas, 2011, 18, 056117.	0.7	38
49	H-mode grade confinement in L-mode edge plasmas at negative triangularity on DIII-D. Physics of Plasmas, 2019, 26, .	0.7	38
50	Evidence for the role of velocity shear on the L-H transition in DIII-D. Plasma Physics and Controlled Fusion, 2002, 44, A333-A339.	0.9	36
51	Chapter 6: Active Spectroscopy. Fusion Science and Technology, 2008, 53, 487-527.	0.6	36
52	The quiescent double barrier regime in the DIII-D tokamak. Plasma Physics and Controlled Fusion, 2001, 43, A95-A112.	0.9	35
53	Spatial transfer function for the beam emission spectroscopy diagnostic on DIII-D. Review of Scientific Instruments, 2006, 77, 10F110.	0.6	35
54	Wide-field turbulence imaging with beam emission spectroscopy. Review of Scientific Instruments, 2010, 81, 10D741.	0.6	35

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55	Changes in particle transport as a result of resonant magnetic perturbations in DIII-D. Physics of Plasmas, 2012, 19, .	0.7	35
56	Energetic ion transport by microturbulence is insignificant in tokamaks. Physics of Plasmas, 2013, 20, 056108.	0.7	35
57	Dynamics of pedestal perturbations by ELMs and edge harmonic oscillations in DIII-D. Plasma Physics and Controlled Fusion, 2004, 46, A121-A129.	0.9	33
58	Investigation of the time-delay estimation method for turbulent velocity inference. Review of Scientific Instruments, 2004, 75, 4278-4280.	0.6	33
59	Progress toward steady-state tokamak operation exploiting the high bootstrap current fraction regime. Physics of Plasmas, 2016, 23, .	0.7	33
60	Direct Observation of Nonlinear Coupling between Pedestal Modes Leading to the Onset of Edge Localized Modes. Physical Review Letters, 2018, 121, 235001.	2.9	28
61	Effects of plasma turbulence on the nonlinear evolution of magnetic island in tokamak. Nature Communications, 2021, 12, 375.	5.8	27
62	Localized Turbulence Suppression and Increased Flow Shear near theq=2Surface during Internal-Transport-Barrier Formation. Physical Review Letters, 2009, 103, 075004.	2.9	26
63	Overview of the beam emission spectroscopy diagnostic system on the National Spherical Torus Experiment. Review of Scientific Instruments, 2010, 81, 10D717.	0.6	26
64	Simultaneous measurement of core electron temperature and density fluctuations during electron cyclotron heating on DIII-D. Physics of Plasmas, 2010, 17, .	0.7	26
65	Formation of a High Pressure Staircase Pedestal with Suppressed Edge Localized Modes in the DIII-D Tokamak. Physical Review Letters, 2019, 123, 115001.	2.9	24
66	Effect of ion â^‡B drift direction on density fluctuation poloidal flow and flow shear. Physics of Plasmas, 2005, 12, 062307.	0.7	22
67	Impact of neoclassical tearing modeâ€“turbulence multi-scale interaction in global confinement degradation and magnetic island stability. Physics of Plasmas, 2017, 24, .	0.7	22
68	Initial beam emission spectroscopy diagnostic system on HL-2A tokamak. Review of Scientific Instruments, 2018, 89, 10D122.	0.6	22
69	Main-ion intrinsic toroidal rotation across the ITG/TEM boundary in DIII-D discharges during ohmic and electron cyclotron heating. Physics of Plasmas, 2019, 26, 042304.	0.7	22
70	Dependence of the impurity transport on the dominant turbulent regime in ELM-y H-mode discharges on the DIII-D tokamak. Physics of Plasmas, 2020, 27, .	0.7	22
71	High sensitivity beam emission spectroscopy for core plasma turbulence imaging (invited). Review of Scientific Instruments, 2006, 77, 10F104.	0.6	21
72	Experimental characterization of multiscale and multifield turbulence as a critical gradient threshold is surpassed in the DIII-D tokamak. Physics of Plasmas, 2013, 20, .	0.7	21

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73	Evidence of Toroidally Localized Turbulence with Applied 3D Fields in the DIII-D Tokamak. Physical Review Letters, 2016, 117, 135001.	2.9	21
74	Progress in extending high poloidal beta scenarios on DIII-D towards a steady-state fusion reactor and impact of energetic particles. Nuclear Fusion, 2020, 60, 126007.	1.6	21
75	Shrinking of core neoclassical tearing mode magnetic islands due to edge localized modes and the role of ion-scale turbulence in island recovery in DIII-D. Physics of Plasmas, 2017, 24, .	0.7	20
76	Transport measurements for confined non-thermal alpha particles in TFTR DT plasmas. Nuclear Fusion, 1997, 37, 501-516.	1.6	19
77	Application of wavelet spectral analysis to plasma fluctuation measurements using beam emission spectroscopy. Review of Scientific Instruments, 1999, 70, 874-877.	0.6	19
78	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
79	Multi-scale transport in the DIII-D ITER baseline scenario with direct electron heating and projection to ITER. Physics of Plasmas, 2018, 25, .	0.7	18
80	Effect of magnetic perturbations on turbulence-flow dynamics at the L-H transition on DIII-D. Physics of Plasmas, 2020, 27, 062507.	0.7	18
81	Simulations of drift resistive ballooning L-mode turbulence in the edge plasma of the DIII-D tokamak. Physics of Plasmas, 2013, 20, .	0.7	17
82	Characterization and parametric dependencies of low wavenumber pedestal turbulence in the National Spherical Torus Experiment. Physics of Plasmas, 2013, 20, .	0.7	17
83	Dynamic neutral beam current and voltage control to improve beam efficacy in tokamaks. Physics of Plasmas, 2018, 25, .	0.7	17
84	AlfvÃ©n wave experiments in the Phaedrusâ€T tokamak*. Physics of Fluids B, 1993, 5, 2506-2512.	1.7	16
85	Scenario development for highÎ²plow torque plasma withqminabove 2 and large-radius internal transport barrier in DIII-D. Nuclear Fusion, 2017, 57, 022016.	1.6	15
86	Ultra-fast charge exchange spectroscopy for turbulent ion temperature fluctuation measurements on the DIII-D tokamak (invited). Review of Scientific Instruments, 2012, 83, 10D526.	0.6	14
87	Advances in physics understanding of high poloidal beta regime toward steady-state operation of CFETR. Physics of Plasmas, 2021, 28, .	0.7	14
88	Low-noise, high-speed detector development for optical turbulence fluctuation measurements for NSTX. Review of Scientific Instruments, 2010, 81, 10D718.	0.6	13
89	Diagnostic performance of the beam emission spectroscopy system on the National Spherical Torus Experiment. Review of Scientific Instruments, 2012, 83, 10D502.	0.6	13
90	Measurements and simulations of low-wavenumber pedestal turbulence in the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 113029.	1.6	13

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91	Changes in density fluctuations as a result of resonant magnetic perturbations correlate with the density inverse scale length. Physics of Plasmas, 2012, 19, 024504.	0.7	11
92	Gyrokinetic GENE simulations of DIII-D near-edge L-mode plasmas. Physics of Plasmas, 2019, 26, .	0.7	11
93	Regulation of AlfvÃ©n Eigenmodes by Microturbulence in Fusion Plasmas. Physical Review Letters, 2022, 128, 185001.	2.9	11
94	Implementation of the Î±â€CHERS diagnostic for Dâ€“T operation of TFTR. Review of Scientific Instruments, 1995, 66, 643-645.	0.6	9
95	DIII-D Diagnostic Systems. Fusion Science and Technology, 2005, 48, 834-851.	0.6	9
96	Comparison of resonant magnetic perturbation-induced particle transport changes in H-mode (DIII-D) and L-mode (MAST). Plasma Physics and Controlled Fusion, 2011, 53, 122001.	0.9	9
97	Excitation of Geodesic Acoustic Modes by External Fields. Physical Review Letters, 2012, 109, 245001.	2.9	9
98	Observation of fully detached divertor integrated with improved core confinement for tokamak fusion plasmas. Physics of Plasmas, 2021, 28, .	0.7	9
99	Ion thermal transport in the H-mode edge transport barrier on DIII-D. Physics of Plasmas, 2022, 29, .	0.7	9
100	Ultrafast ion temperature and toroidal velocity fluctuation spectroscopy diagnostic design. Review of Scientific Instruments, 2008, 79, 10F528.	0.6	8
101	Multi-field/multi-scale turbulence response to electron cyclotron heating of DIII-D ohmic plasmas. Physics of Plasmas, 2011, 18, 082504.	0.7	8
102	Extracting the turbulent flow-field from beam emission spectroscopy images using velocimetry. Review of Scientific Instruments, 2018, 89, 10E107.	0.6	8
103	Evidence of Eâ€ˆÃ—â€ˆB staircase in HL-2A L-mode tokamak discharges. Physics of Plasmas, 2021, 28, .	0.7	8
104	Alphaâ€CHERS: A spectroscopic experiment to detect nonthermal alpha particles on TFTR. Review of Scientific Instruments, 1992, 63, 5179-5181.	0.6	7
105	Spectrometer system and detector tests for the TFTR alphaâ€CHERS experiment. Review of Scientific Instruments, 1992, 63, 5182-5184.	0.6	7
106	A Lyman-alpha-based (VUV) plasma density fluctuation diagnostic design. Review of Scientific Instruments, 2001, 72, 992-995.	0.6	7
107	Initial results of high resolution Lâ€“H transition studies on DIII-D. Plasma Physics and Controlled Fusion, 2004, 46, A363-A371.	0.9	7
108	Velocity fluctuation analysis via dynamic programming. Review of Scientific Instruments, 2006, 77, 10F518.	0.6	7

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109	â€˜Beam-emission spectroscopyâ€™ diagnostics also measure edge fast-ion light. Plasma Physics and Controlled Fusion, 2011, 53, 085007.	0.9	7
110	Ultrafast spectroscopy diagnostic to measure localized ion temperature and toroidal velocity fluctuations. Review of Scientific Instruments, 2010, 81, 10D714.	0.6	6
111	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
112	Spectroscopic observation of 0-300 keV3He ions produced by ICRF heating in TFTR. Nuclear Fusion, 1994, 34, 734-739.	1.6	5
113	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, .	0.7	5
114	Experimental characterization of the effect of E Ã— B shear on edge-harmonic oscillation mode structure. Plasma Physics and Controlled Fusion, 2019, 61, 085003.	0.9	5
115	Relating the Lâ€“H power threshold scaling to edge turbulence dynamics. Nuclear Fusion, 2013, 53, 113038.	1.6	4
116	Optimization and application of cooled avalanche photodiodes for spectroscopic fluctuation measurements with ultra-fast charge exchange recombination spectroscopy. Review of Scientific Instruments, 2016, 87, 11E551.	0.6	4
117	Spatial heterodyne spectroscopy for high speed measurements of Stark split neutral beam emission in a high temperature plasma. Review of Scientific Instruments, 2018, 89, 10D114.	0.6	4
118	Comparison of Experimental Fluctuation and Turbulence Measurements with Theory and Simulation at DIII-D. Fusion Science and Technology, 2005, 48, 1042-1050.	0.6	3
119	Dependence of the low to high confinement mode transition power threshold and turbulence flow shear on injected torque. Physics of Plasmas, 2009, 16, .	0.7	3
120	Safety factor and turbulence dynamics dependence of the L-H power threshold on DIII-D. Physics of Plasmas, 2019, 26, 062507.	0.7	3
121	Doppler-shift compensated spatial heterodyne spectroscopy for rapidly moving sources. Applied Optics, 2021, 60, 4885.	0.9	3
122	Singular value decomposition filtering for enhanced signal extraction from two-dimensional beam emission spectroscopy measurements. Review of Scientific Instruments, 2008, 79, 10F534.	0.6	2
123	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.	0.6	1
124	Evolution patterns and parameter regimes in edge localized modes on the National Spherical Torus Experiment. Plasma Physics and Controlled Fusion, 2016, 58, 045003.	0.9	1
125	Physics of increased edge electron temperature and density turbulence during ELM-free QH-mode operation on DIII-D. Physics of Plasmas, 2018, 25, 055904.	0.7	0