

# G R Mckee

## List of Publications by Year in descending order

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125  
papers

5,204  
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66343

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127  
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127  
docs citations

127  
times ranked

1962  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ion thermal transport in the H-mode edge transport barrier on DIII-D. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	9
2	Regulation of Alfvén Eigenmodes by Microturbulence in Fusion Plasmas. <i>Physical Review Letters</i> , 2022, 128, 185001.	7.8	11
3	Evidence of $E \times B$ staircase in HL-2A L-mode tokamak discharges. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	8
4	Effects of plasma turbulence on the nonlinear evolution of magnetic island in tokamak. <i>Nature Communications</i> , 2021, 12, 375.	12.8	27
5	Advances in physics understanding of high poloidal beta regime toward steady-state operation of CFETR. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	14
6	Observation of fully detached divertor integrated with improved core confinement for tokamak fusion plasmas. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	9
7	Ion temperature and rotation fluctuation measurements with ultra-fast charge exchange recombination spectroscopy (UF-CHERS) in the DIII-D tokamak. <i>Review of Scientific Instruments</i> , 2021, 92, 053513.	1.3	1
8	Doppler-shift compensated spatial heterodyne spectroscopy for rapidly moving sources. <i>Applied Optics</i> , 2021, 60, 4885.	1.8	3
9	Dependence of the impurity transport on the dominant turbulent regime in ELM-y H-mode discharges on the DIII-D tokamak. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	22
10	Effect of magnetic perturbations on turbulence-flow dynamics at the L-H transition on DIII-D. <i>Physics of Plasmas</i> , 2020, 27, 062507.	1.9	18
11	Progress in extending high poloidal beta scenarios on DIII-D towards a steady-state fusion reactor and impact of energetic particles. <i>Nuclear Fusion</i> , 2020, 60, 126007.	3.5	21
12	Safety factor and turbulence dynamics dependence of the L-H power threshold on DIII-D. <i>Physics of Plasmas</i> , 2019, 26, 062507.	1.9	3
13	Formation of a High Pressure Staircase Pedestal with Suppressed Edge Localized Modes in the DIII-D Tokamak. <i>Physical Review Letters</i> , 2019, 123, 115001.	7.8	24
14	Gyrokinetic GENE simulations of DIII-D near-edge L-mode plasmas. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	11
15	Main-ion intrinsic toroidal rotation across the ITG/TEM boundary in DIII-D discharges during ohmic and electron cyclotron heating. <i>Physics of Plasmas</i> , 2019, 26, 042304.	1.9	22
16	Experimental characterization of the effect of $E \times B$ shear on edge-harmonic oscillation mode structure. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 085003.	2.1	5
17	H-mode grade confinement in L-mode edge plasmas at negative triangularity on DIII-D. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	38
18	Achievement of Reactor-Relevant Performance in Negative Triangularity Shape in the DIII-D Tokamak. <i>Physical Review Letters</i> , 2019, 122, 115001.	7.8	86

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19	Dynamic neutral beam current and voltage control to improve beam efficacy in tokamaks. Physics of Plasmas, 2018, 25, .	1.9	17
20	Helical variation of density profiles and fluctuations in the tokamak pedestal with applied 3D fields and implications for confinement. Physics of Plasmas, 2018, 25, .	1.9	6
21	Multi-scale transport in the DIII-D ITER baseline scenario with direct electron heating and projection to ITER. Physics of Plasmas, 2018, 25, .	1.9	18
22	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
23	Extracting the turbulent flow-field from beam emission spectroscopy images using velocimetry. Review of Scientific Instruments, 2018, 89, 10E107.	1.3	8
24	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.	1.3	4
25	Direct Observation of Nonlinear Coupling between Pedestal Modes Leading to the Onset of Edge Localized Modes. Physical Review Letters, 2018, 121, 235001.	7.8	28
26	Initial beam emission spectroscopy diagnostic system on HL-2A tokamak. Review of Scientific Instruments, 2018, 89, 10D122.	1.3	22
27	Multi-field/-scale interactions of turbulence with neoclassical tearing mode magnetic islands in the DIII-D tokamak. Physics of Plasmas, 2017, 24, .	1.9	46
28	Overview of NSTX Upgrade initial results and modelling highlights. Nuclear Fusion, 2017, 57, 102006.	3.5	45
29	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, .	1.9	20
30	Scenario development for high- $\beta_{\text{plow}}$ torque plasma with $q_{\text{min}}$ above 2 and large-radius internal transport barrier in DIII-D. Nuclear Fusion, 2017, 57, 022016.	3.5	15
31	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
32	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, .	1.9	43
33	Impact of neoclassical tearing mode-turbulence multi-scale interaction in global confinement degradation and magnetic island stability. Physics of Plasmas, 2017, 24, .	1.9	22
34	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, .	1.9	41
35	Progress toward steady-state tokamak operation exploiting the high bootstrap current fraction regime. Physics of Plasmas, 2016, 23, .	1.9	33
36	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.	1.3	4

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37	Evidence of Toroidally Localized Turbulence with Applied 3D Fields in the DIII-D Tokamak. Physical Review Letters, 2016, 117, 135001.	7.8	21
38	Modulation of Core Turbulent Density Fluctuations by Large-Scale Neoclassical Tearing Mode Islands in the DIII-D Tokamak. Physical Review Letters, 2016, 116, 215001.	7.8	69
39	Evolution patterns and parameter regimes in edge localized modes on the National Spherical Torus Experiment. Plasma Physics and Controlled Fusion, 2016, 58, 045003.	2.1	1
40	Evolution of $E \times B$ 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
41	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.	7.8	141
42	Observation of the $L \rightarrow H$ Bifurcation Triggered by a Turbulence-Driven Shear Flow in a Tokamak Plasma. Physical Review Letters, 2014, 112, 125002.	7.8	91
43	Overview of physics results from the conclusive operation of the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 104007.	3.5	53
44	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
45	Energetic ion transport by microturbulence is insignificant in tokamaks. Physics of Plasmas, 2013, 20, 056108.	1.9	35
46	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
47	Characterization and parametric dependencies of low wavenumber pedestal turbulence in the National Spherical Torus Experiment. Physics of Plasmas, 2013, 20, .	1.9	17
48	Relating the $L \rightarrow H$ power threshold scaling to edge turbulence dynamics. Nuclear Fusion, 2013, 53, 113038.	3.5	4
49	Measurements and simulations of low-wavenumber pedestal turbulence in the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 113029.	3.5	13
50	Multi-field characteristics and eigenmode spatial structure of geodesic acoustic modes in DIII-D L-mode plasmas. Physics of Plasmas, 2013, 20, .	1.9	42
51	Observation of a Critical Gradient Threshold for Electron Temperature Fluctuations in the DIII-D Tokamak. Physical Review Letters, 2013, 110, 045003.	7.8	43
52	Changes in density fluctuations as a result of resonant magnetic perturbations correlate with the density inverse scale length. Physics of Plasmas, 2012, 19, 024504.	1.9	11
53	2D properties of core turbulence on DIII-D and comparison to gyrokinetic simulations. Physics of Plasmas, 2012, 19, .	1.9	40
54	Changes in particle transport as a result of resonant magnetic perturbations in DIII-D. Physics of Plasmas, 2012, 19, .	1.9	35

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55	Ultra-fast charge exchange spectroscopy for turbulent ion temperature fluctuation measurements on the DIII-D tokamak (invited). Review of Scientific Instruments, 2012, 83, 10D526.	1.3	14
56	Excitation of Geodesic Acoustic Modes by External Fields. Physical Review Letters, 2012, 109, 245001.	7.8	9
57	Diagnostic performance of the beam emission spectroscopy system on the National Spherical Torus Experiment. Review of Scientific Instruments, 2012, 83, 10D502.	1.3	13
58	Advances in validating gyrokinetic turbulence models against L- and H-mode plasmas. Physics of Plasmas, 2011, 18, 056113.	1.9	69
59	Measurements and modeling of Alfvén eigenmode induced fast ion transport and loss in DIII-D and ASDEX Upgrade. Physics of Plasmas, 2011, 18, .	1.9	90
60	Beam-emission spectroscopy diagnostics also measure edge fast-ion light. Plasma Physics and Controlled Fusion, 2011, 53, 085007.	2.1	7
61	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.	2.1	9
62	Pedestal density fluctuation dynamics during the inter-ELM cycle in DIII-D. Physics of Plasmas, 2011, 18, 056117.	1.9	38
63	Multi-field/multi-scale turbulence response to electron cyclotron heating of DIII-D ohmic plasmas. Physics of Plasmas, 2011, 18, 082504.	1.9	8
64	Ultrafast spectroscopy diagnostic to measure localized ion temperature and toroidal velocity fluctuations. Review of Scientific Instruments, 2010, 81, 10D714.	1.3	6
65	Low-noise, high-speed detector development for optical turbulence fluctuation measurements for NSTX. Review of Scientific Instruments, 2010, 81, 10D718.	1.3	13
66	Overview of the beam emission spectroscopy diagnostic system on the National Spherical Torus Experiment. Review of Scientific Instruments, 2010, 81, 10D717.	1.3	26
67	Simultaneous measurement of core electron temperature and density fluctuations during electron cyclotron heating on DIII-D. Physics of Plasmas, 2010, 17, .	1.9	26
68	Measurements of the cross-phase angle between density and electron temperature fluctuations and comparison with gyrokinetic simulations. Physics of Plasmas, 2010, 17, 056103.	1.9	77
69	Wide-field turbulence imaging with beam emission spectroscopy. Review of Scientific Instruments, 2010, 81, 10D741.	1.3	35
70	Implementation and application of two synthetic diagnostics for validating simulations of core tokamak turbulence. Physics of Plasmas, 2009, 16, .	1.9	119
71	Optimizing stability, transport, and divertor operation through plasma shaping for steady-state scenario development in DIII-D. Physics of Plasmas, 2009, 16, .	1.9	42
72	Localized Turbulence Suppression and Increased Flow Shear near the $q=2$ Surface during Internal-Transport-Barrier Formation. Physical Review Letters, 2009, 103, 075004.	7.8	26

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73	A review of experimental drift turbulence studies. Plasma Physics and Controlled Fusion, 2009, 51, 113001.	2.1	142
74	Dependence of the low to high confinement mode transition power threshold and turbulence flow shear on injected torque. Physics of Plasmas, 2009, 16, .	1.9	3
75	Singular value decomposition filtering for enhanced signal extraction from two-dimensional beam emission spectroscopy measurements. Review of Scientific Instruments, 2008, 79, 10F534.	1.3	2
76	Ultrafast ion temperature and toroidal velocity fluctuation spectroscopy diagnostic design. Review of Scientific Instruments, 2008, 79, 10F528.	1.3	8
77	Measurements of core electron temperature and density fluctuations in DIII-D and comparison to nonlinear gyrokinetic simulations. Physics of Plasmas, 2008, 15, .	1.9	102
78	Tempest Simulations of Collisionless Damping of the Geodesic-Acoustic Mode in Edge-Plasma Pedestals. Physical Review Letters, 2008, 100, 215001.	7.8	63
79	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.	1.3	44
80	Validation in fusion research: Towards guidelines and best practices. Physics of Plasmas, 2008, 15, .	1.9	92
81	Chapter 6: Active Spectroscopy. Fusion Science and Technology, 2008, 53, 487-527.	1.1	36
82	Zonal-flow-driven nonlinear energy transfer in experiment and simulation. Physics of Plasmas, 2007, 14, 056112.	1.9	50
83	Detection of Zero-Mean-Frequency Zonal Flows in the Core of a High-Temperature Tokamak Plasma. Physical Review Letters, 2006, 97, 125002.	7.8	84
84	Structure and scaling properties of the geodesic acoustic mode. Plasma Physics and Controlled Fusion, 2006, 48, S123-S136.	2.1	98
85	Core barrier formation near integer q surfaces in DIII-D. Physics of Plasmas, 2006, 13, 082502.	1.9	73
86	High sensitivity beam emission spectroscopy for core plasma turbulence imaging (invited). Review of Scientific Instruments, 2006, 77, 10F104.	1.3	21
87	Spatial transfer function for the beam emission spectroscopy diagnostic on DIII-D. Review of Scientific Instruments, 2006, 77, 10F110.	1.3	35
88	Velocity fluctuation analysis via dynamic programming. Review of Scientific Instruments, 2006, 77, 10F518.	1.3	7
89	DIII-D Diagnostic Systems. Fusion Science and Technology, 2005, 48, 834-851.	1.1	9
90	Comparison of Experimental Fluctuation and Turbulence Measurements with Theory and Simulation at DIII-D. Fusion Science and Technology, 2005, 48, 1042-1050.	1.1	3

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91	Edge-localized mode dynamics and transport in the scrape-off layer of the DIII-D tokamak. <i>Physics of Plasmas</i> , 2005, 12, 072516.	1.9	66
92	Effect of ion $\hat{v}_B$ drift direction on density fluctuation poloidal flow and flow shear. <i>Physics of Plasmas</i> , 2005, 12, 062307.	1.9	22
93	Edge localized mode control with an edge resonant magnetic perturbation. <i>Physics of Plasmas</i> , 2005, 12, 056119.	1.9	109
94	Initial results of high resolution $L\alpha$ H transition studies on DIII-D. <i>Plasma Physics and Controlled Fusion</i> , 2004, 46, A363-A371.	2.1	7
95	Dynamics of pedestal perturbations by ELMs and edge harmonic oscillations in DIII-D. <i>Plasma Physics and Controlled Fusion</i> , 2004, 46, A121-A129.	2.1	33
96	Enhanced sensitivity beam emission spectroscopy system for nonlinear turbulence measurements. <i>Review of Scientific Instruments</i> , 2004, 75, 3493-3495.	1.3	47
97	Investigation of the time-delay estimation method for turbulent velocity inference. <i>Review of Scientific Instruments</i> , 2004, 75, 4278-4280.	1.3	33
98	Turbulence velocimetry of density fluctuation imaging data. <i>Review of Scientific Instruments</i> , 2004, 75, 3490-3492.	1.3	56
99	Experimental characterization of coherent, radially-sheared zonal flows in the DIII-D tokamak. <i>Physics of Plasmas</i> , 2003, 10, 1712-1719.	1.9	168
100	Turbulence imaging and applications using beam emission spectroscopy on DIII-D (invited). <i>Review of Scientific Instruments</i> , 2003, 74, 2014-2019.	1.3	76
101	Observation and characterization of radially sheared zonal flows in DIII-D. <i>Plasma Physics and Controlled Fusion</i> , 2003, 45, A477-A485.	2.1	90
102	Observation of Coherent Sheared Turbulence Flows in the DIII-D Tokamak. <i>Physical Review Letters</i> , 2002, 89, 265003.	7.8	114
103	Slow $L\alpha$ H Transitions in DIII-D Plasmas. <i>Physical Review Letters</i> , 2002, 88, 255002.	7.8	68
104	Evidence for the role of velocity shear on the L-H transition in DIII-D. <i>Plasma Physics and Controlled Fusion</i> , 2002, 44, A333-A339.	2.1	36
105	Quiescent H-mode plasmas in the DIII-D tokamak. <i>Plasma Physics and Controlled Fusion</i> , 2002, 44, A253-A263.	2.1	149
106	Wavelet-based time-delay estimation for time-resolved turbulent flow analysis. <i>Review of Scientific Instruments</i> , 2001, 72, 996-999.	1.3	43
107	A Lyman-alpha-based (VUV) plasma density fluctuation diagnostic design. <i>Review of Scientific Instruments</i> , 2001, 72, 992-995.	1.3	7
108	The quiescent double barrier regime in the DIII-D tokamak. <i>Plasma Physics and Controlled Fusion</i> , 2001, 43, A95-A112.	2.1	35

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109	Transport by intermittent convection in the boundary of the DIII-D tokamak. <i>Physics of Plasmas</i> , 2001, 8, 4826-4833.	1.9	322
110	Quiescent double barrier high-confinement mode plasmas in the DIII-D tokamak. <i>Physics of Plasmas</i> , 2001, 8, 2153-2162.	1.9	190
111	Observation of simultaneous internal transport barriers in all four transport channels and correlation with turbulence behaviour in NCS discharges on DIII-D. <i>Plasma Physics and Controlled Fusion</i> , 2000, 42, A237-A246.	2.1	47
112	Impurity-induced turbulence suppression and reduced transport in the DIII-D tokamak. <i>Physics of Plasmas</i> , 2000, 7, 1870-1877.	1.9	60
113	Impurity-Induced Suppression of Core Turbulence and Transport in the DIII-D Tokamak. <i>Physical Review Letters</i> , 2000, 84, 1922-1925.	7.8	59
114	Understanding and control of transport in Advanced Tokamak regimes in DIII-D. <i>Physics of Plasmas</i> , 2000, 7, 1959-1967.	1.9	49
115	Large-scale behavior of the tokamak density fluctuations. <i>Physics of Plasmas</i> , 2000, 7, 3691-3698.	1.9	52
116	Application of wavelet spectral analysis to plasma fluctuation measurements using beam emission spectroscopy. <i>Review of Scientific Instruments</i> , 1999, 70, 874-877.	1.3	19
117	The beam emission spectroscopy diagnostic on the DIII-D tokamak. <i>Review of Scientific Instruments</i> , 1999, 70, 913-916.	1.3	183
118	Experimental evidence of long-range correlations and self-similarity in plasma fluctuations. <i>Physics of Plasmas</i> , 1999, 6, 1885-1892.	1.9	57
119	Transport measurements for confined non-thermal alpha particles in TFTR DT plasmas. <i>Nuclear Fusion</i> , 1997, 37, 501-516.	3.5	19
120	Implementation of the alpha-CHERS diagnostic for D-alpha-T operation of TFTR. <i>Review of Scientific Instruments</i> , 1995, 66, 643-645.	1.3	9
121	Confined Alpha Distribution Measurements in a Deuterium-Tritium Tokamak Plasma. <i>Physical Review Letters</i> , 1995, 75, 649-652.	7.8	52
122	Spectroscopic observation of 0-300 keV <sup>3</sup> He ions produced by ICRF heating in TFTR. <i>Nuclear Fusion</i> , 1994, 34, 734-739.	3.5	5
123	Alfvén wave experiments in the Phaedrus tokamak*. <i>Physics of Fluids B</i> , 1993, 5, 2506-2512.	1.7	16
124	Alpha-CHERS: A spectroscopic experiment to detect nonthermal alpha particles on TFTR. <i>Review of Scientific Instruments</i> , 1992, 63, 5179-5181.	1.3	7
125	Spectrometer system and detector tests for the TFTR alpha-CHERS experiment. <i>Review of Scientific Instruments</i> , 1992, 63, 5182-5184.	1.3	7