

J R Myra

List of Publications by Year in descending order

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115
papers

3,968
citations

109321

35
h-index

133252

59
g-index

119
all docs

119
docs citations

119
times ranked

1322
citing authors

#	ARTICLE	IF	CITATIONS
1	Convective transport by intermittent blob-filaments: Comparison of theory and experiment. Physics of Plasmas, 2011, 18, .	1.9	417
2	Recent theoretical progress in understanding coherent structures in edge and SOL turbulence. Journal of Plasma Physics, 2008, 74, 679-717.	2.1	243
3	Cross-field blob transport in tokamak scrape-off-layer plasmas. Physics of Plasmas, 2002, 9, 222-233.	1.9	190
4	Low-to-high confinement transition simulations in divertor geometry. Physics of Plasmas, 2000, 7, 1951-1958.	1.9	168
5	Collisionality and magnetic geometry effects on tokamak edge turbulent transport. I. A two-region model with application to blobs. Physics of Plasmas, 2006, 13, 112502.	1.9	125
6	Blob birth and transport in the tokamak edge plasma: Analysis of imaging data. Physics of Plasmas, 2006, 13, 092509.	1.9	122
7	Faraday screen sheaths and impurity production during ion cyclotron heating. Nuclear Fusion, 1990, 30, 845-858.	3.5	93
8	20 years of research on the Alcator C-Mod tokamak. Physics of Plasmas, 2014, 21, .	1.9	88
9	Nonlinear ICRF-plasma interactions. Nuclear Fusion, 2006, 46, S455-S468.	3.5	73
10	A model of sheath-driven impurity production by ICRF antennas. Plasma Physics and Controlled Fusion, 1991, 33, 607-642.	2.1	72
11	Radio-frequency sheath-driven edge plasma convection and interaction with the H mode. Physics of Fluids B, 1993, 5, 3603-3617.	1.7	69
12	Blob structure and motion in the edge and SOL of NSTX. Plasma Physics and Controlled Fusion, 2016, 58, 044007.	2.1	68
13	A radio-frequency sheath boundary condition and its effect on slow wave propagation. Physics of Plasmas, 2006, 13, 102508.	1.9	64
14	Convective transport in the scrape-off-layer by nonthermalized spinning blobs. Physics of Plasmas, 2004, 11, 4267-4274.	1.9	63
15	Impurity release from the ICRF antenna screens in JET. Plasma Physics and Controlled Fusion, 1991, 33, 937-967.	2.1	60
16	Blob Dynamics in 3D BOUT Simulations of Tokamak Edge Turbulence. Physical Review Letters, 2004, 93, 265001.	7.8	60
17	Edge instability regimes with applications to blob transport and the quasicohherent mode. Physics of Plasmas, 2005, 12, 092511.	1.9	56
18	Saturation mechanisms for edge turbulence. Physics of Plasmas, 2009, 16, 122304.	1.9	55

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19	Edge and SOL turbulence and blob variations over a large database in NSTX. Nuclear Fusion, 2015, 55, 093035.	3.5	53
20	Blob stability and transport in the scrape-off-layer. Physics of Plasmas, 2003, 10, 4029-4039.	1.9	52
21	Far field sheaths from waves in the ion cyclotron range of frequencies. Physics of Plasmas, 1994, 1, 2890-2900.	1.9	49
22	Reduced model simulations of the scrape-off-layer heat-flux width and comparison with experiment. Physics of Plasmas, 2011, 18, 012305.	1.9	49
23	Analysis of RF sheath interactions in TFTR. Nuclear Fusion, 1998, 38, 1543-1563.	3.5	48
24	Assessment of beryllium Faraday screens on the JET ICRF antennas. Nuclear Fusion, 1992, 32, 1139-1145.	3.5	47
25	Resistive modes in the edge and scrape-off layer of diverted tokamaks. Physics of Plasmas, 2000, 7, 4622-4631.	1.9	47
26	Overview of NSTX Upgrade initial results and modelling highlights. Nuclear Fusion, 2017, 57, 102006.	3.5	45
27	Edge transport studies in the edge and scrape-off layer of the National Spherical Torus Experiment with Langmuir probes. Physics of Plasmas, 2014, 21, .	1.9	44
28	Radio frequency sheaths in an oblique magnetic field. Physics of Plasmas, 2015, 22, .	1.9	44
29	Transport of perpendicular edge momentum by drift-interchange turbulence and blobs. Physics of Plasmas, 2008, 15, .	1.9	43
30	Status and verification of edge plasma turbulence code BOUT. Computer Physics Communications, 2009, 180, 887-903.	7.5	43
31	Collisionality and magnetic geometry effects on tokamak edge turbulent transport. II. Many-blob turbulence in the two-region model. Physics of Plasmas, 2007, 14, .	1.9	42
32	ICRF-enhanced plasma potentials in the SOL of Alcator C-Mod. Plasma Physics and Controlled Fusion, 2014, 56, 015004.	2.1	40
33	Self-consistent full-wave and Fokker-Planck calculations for ion cyclotron heating in non-Maxwellian plasmas. Physics of Plasmas, 2006, 13, 056101.	1.9	38
34	Low-power fast wave antenna loading as a radio-frequency sheath diagnostic. Physics of Plasmas, 1996, 3, 420-426.	1.9	35
35	Filamentary velocity scaling validation in the TCV tokamak. Physics of Plasmas, 2018, 25, .	1.9	35
36	Resistive X-point modes in tokamak boundary plasmas. Physics of Plasmas, 2000, 7, 2290-2293.	1.9	34

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37	Global-wave solutions with self-consistent velocity distributions in ion cyclotron heated plasmas. Nuclear Fusion, 2006, 46, S397-S408.	3.5	34
38	Edge sheared flows and the dynamics of blob-filaments. Nuclear Fusion, 2013, 53, 073013.	3.5	34
39	Comparison of scrape-off layer turbulence simulations with experiments using a synthetic gas puff imaging diagnostic. Physics of Plasmas, 2011, 18, .	1.9	32
40	Current carrying blob filaments and edge-localized-mode dynamics. Physics of Plasmas, 2007, 14, 102314.	1.9	31
41	Far-field sheaths due to fast waves incident on material boundaries. Physics of Plasmas, 2008, 15, .	1.9	31
42	Nonlinear fluxes and forces from radio-frequency waves with application to driven flows in tokamaks. Physics of Plasmas, 2004, 11, 1786-1798.	1.9	30
43	Turbulent transport regimes and the scrape-off layer heat flux width. Physics of Plasmas, 2015, 22, 042516.	1.9	30
44	Modelling of mixed-phasing antenna-plasma interactions on JET A2 antennas. Nuclear Fusion, 2002, 42, 1357-1365.	3.5	29
45	Numerical analysis of radio-frequency sheath-plasma interactions in the ion cyclotron range of frequencies. Physics of Plasmas, 2012, 19, 012508.	1.9	28
46	Poloidal force generation by applied radio frequency waves. Physics of Plasmas, 2000, 7, 3600-3609.	1.9	27
47	Resonance Cone Interaction With a Self-Consistent Radio-Frequency Sheath. Physical Review Letters, 2008, 101, 195004.	7.8	27
48	Slow-wave propagation and sheath interaction in the ion-cyclotron frequency range. Plasma Physics and Controlled Fusion, 2010, 52, 015003.	2.1	25
49	ICRF-edge and surface interactions. Journal of Nuclear Materials, 2011, 415, S1001-S1004.	2.7	24
50	Three-dimensional analysis of antenna sheaths. Fusion Engineering and Design, 1996, 31, 291-312.	1.9	23
51	Rotational stability of plasma blobs. Physics of Plasmas, 2004, 11, 4603-4609.	1.9	23
52	A tutorial on radio frequency sheath physics for magnetically confined fusion devices. Journal of Plasma Physics, 2021, 87, .	2.1	23
53	Scattering of radio frequency waves by blob-filaments. Physics of Plasmas, 2010, 17, .	1.9	21
54	Numerical investigation of fast-wave propagation and radio-frequency sheath interaction with a shaped tokamak wall. Physics of Plasmas, 2015, 22, 072504.	1.9	21

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55	An overview of recent physics results from NSTX. Nuclear Fusion, 2015, 55, 104002.	3.5	21
56	Physics-based parametrization of the surface impedance for radio frequency sheaths. Physics of Plasmas, 2017, 24, 072507.	1.9	21
57	Thermal transport catastrophe and the tokamak edge density limit. Physics of Plasmas, 2006, 13, 062503.	1.9	20
58	NSTX/NSTX-U theory, modeling and analysis results. Nuclear Fusion, 2019, 59, 112007.	3.5	20
59	Comparison of edge turbulence imaging at two different poloidal locations in the scrape-off layer of Alcator C-Mod. Physics of Plasmas, 2013, 20, .	1.9	19
60	Two-dimensional turbulence cross-correlation functions in the edge of NSTX. Physics of Plasmas, 2017, 24, .	1.9	19
61	A finite element procedure for radio-frequency sheath-plasma interactions based on a sheath impedance model. Computer Physics Communications, 2017, 220, 129-142.	7.5	19
62	Effect of parallel currents on drift-interchange turbulence: Comparison of simulation and experiment. Physics of Plasmas, 2012, 19, .	1.9	18
63	Divertor leg filaments in NSTX-U. Nuclear Fusion, 2018, 58, 126028.	3.5	18
64	Turbulent transport and the scrape-off-layer width. Journal of Nuclear Materials, 2011, 415, S605-S608.	2.7	16
65	Modeling far-field radio-frequency sheaths in Alcator C-Mod. Plasma Physics and Controlled Fusion, 2013, 55, 085001.	2.1	16
66	Modeling the effect of lithium-induced pedestal profiles on scrape-off-layer turbulence and the heat flux width. Physics of Plasmas, 2015, 22, 092311.	1.9	16
67	Radio-frequency sheath mitigation by insulating antenna limiters. Journal of Nuclear Materials, 1997, 249, 190-198.	2.7	15
68	Filament-assisted mode conversion in magnetized plasmas. Physics of Plasmas, 2020, 27, 010702.	1.9	15
69	Radio-frequency sheath-plasma interactions with magnetic field tangency points along the sheath surface. Physics of Plasmas, 2013, 20, .	1.9	14
70	A reduced model of neutral-plasma interactions in the edge and scrape-off-layer: Verification comparisons with kinetic Monte Carlo simulations. Physics of Plasmas, 2019, 26, .	1.9	14
71	Radio-frequency wave interactions with a plasma sheath in oblique-angle magnetic fields using a sheath impedance model. Physics of Plasmas, 2019, 26, .	1.9	14
72	Nonlinear nonresonant forces by radio-frequency waves in plasmas. Physics of Plasmas, 2007, 14, .	1.9	13

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73	Linear eigenvalue code for edge plasma in full tokamak X-point geometry. Computer Physics Communications, 2011, 182, 1610-1620.	7.5	13
74	A finite element procedure for radio-frequency sheath-plasma interactions in the ion cyclotron range of frequencies. Computer Physics Communications, 2012, 183, 2116-2127.	7.5	12
75	Investigation of RF-enhanced plasma potentials on Alcator C-Mod. Journal of Nuclear Materials, 2013, 438, S875-S878.	2.7	12
76	A quiver-kinetic formulation of radio-frequency heating and confinement in collisional edge plasmas. Physics of Fluids B, 1989, 1, 1193-1204.	1.7	11
77	Theory based scaling of edge turbulence and implications for the scrape-off layer width. Physics of Plasmas, 2016, 23, .	1.9	11
78	Disconnection of scrape off layer turbulence between the outer midplane and divertor target plate in NSTX. Nuclear Fusion, 2020, 60, 026004.	3.5	11
79	Recent progress in modeling ICRF-edge plasma interactions with application to ASDEX Upgrade. Nuclear Fusion, 0, , .	3.5	11
80	Estimate of convective radial transport due to SOL turbulence as measured by GPI in Alcator C-Mod. Journal of Nuclear Materials, 2011, 415, S463-S466.	2.7	10
81	Numerical investigation of edge plasma phenomena in an enhanced D-alpha discharge at Alcator C-Mod: Parallel heat flux and quasi-coherent edge oscillations. Physics of Plasmas, 2012, 19, .	1.9	10
82	Role of ponderomotive density expulsion in ion Bernstein wave coupling to the core plasma. Physics of Plasmas, 1998, 5, 743-751.	1.9	9
83	Numerical model of the radio-frequency magnetic presheath including wall impurities. Physics of Plasmas, 2019, 26, .	1.9	9
84	Correlation between the relative blob fraction and plasma parameters in NSTX. Physics of Plasmas, 2022, 29, .	1.9	9
85	Mitigating impact of thermal and rectified radio-frequency sheath potentials on edge localized modes. Physics of Plasmas, 2014, 21, 112302.	1.9	8
86	Mean flows and blob velocities in scrape-off layer (SOLT) simulations of an L-mode discharge on Alcator C-Mod. Physics of Plasmas, 2016, 23, 062305.	1.9	8
87	RF sheath induced sputtering on Proto-MPEX. I. Sheath equivalent dielectric layer for modeling the RF sheath. Physics of Plasmas, 2021, 28, .	1.9	8
88	Analytical and numerical study of the transverse Kelvin-Helmholtz instability in tokamak edge plasmas. Journal of Plasma Physics, 2016, 82, .	2.1	7
89	Radio frequency wave interactions with a plasma sheath: The role of wave and plasma sheath impedances. Physics of Plasmas, 2019, 26, 052503.	1.9	7
90	Dynamics of filaments during the edge-localized mode crash on NSTX. Physics of Plasmas, 2021, 28, .	1.9	7

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91	Reduced-model scrape-off layer turbulence (nSOLT) simulations comparing three fueling scenarios. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	7
92	Effect of net direct current on the properties of radio frequency sheaths: simulation and cross-code comparison. <i>Nuclear Fusion</i> , 2021, 61, 016030.	3.5	7
93	Resonant waveâ€‘filament interactions as a loss mechanism for HHFW heating and current drive. <i>Plasma Physics and Controlled Fusion</i> , 2022, 64, 035001.	2.1	7
94	Drift wave instability near a magnetic separatrix. <i>Physics of Plasmas</i> , 2002, 9, 1637-1645.	1.9	6
95	Calculation of the radial electric field with RF sheath boundary conditions in divertor geometry. <i>Nuclear Fusion</i> , 2018, 58, 026027.	3.5	6
96	Measurement and modeling of the radio frequency sheath impedance in a large magnetized plasma. <i>Physics of Plasmas</i> , 2020, 27, 072506.	1.9	6
97	MHD-blob correlations in NSTX. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	6
98	RF sheath induced sputtering on Proto-MPEX part 2: Impurity transport modeling and experimental comparison. <i>Physics of Plasmas</i> , 2021, 28, 103508.	1.9	6
99	Calculation of RF sheath properties from surface wave-fields: a post-processing method. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 095003.	2.1	5
100	Reduction of blob-filament radial propagation by parallel variation of flows: Analysis of a gyrokinetic simulation. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	5
101	Energy-angle distribution of the ions in the RF sheath of ICRH antennas. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	5
102	Ponderomotive force driven density modifications parallel to B0 on the LAPD. <i>Physics of Plasmas</i> , 2022, 29, 042508.	1.9	5
103	On the origin of high harmonic fast wave edge losses in NSTX. <i>Nuclear Fusion</i> , 2022, 62, 096011.	3.5	5
104	RF sheaths in spherical tokamaks and their control using insulating limiters. , 1997, , .		4
105	Three-dimensional finite-element model of the ion Bernstein wave antenna and excitation of coaxial electrostatic edge modes in the tokamak fusion test reactor. <i>Nuclear Fusion</i> , 2003, 43, 531-538.	3.5	4
106	Eigenvalue Solver for Fluid and Kinetic Plasma Models in Arbitrary Magnetic Topology. <i>Communications in Computational Physics</i> , 2016, 20, 136-155.	1.7	4
107	Analysis of equilibrium and turbulent fluxes across the separatrix in a gyrokinetic simulation. <i>Physics of Plasmas</i> , 2018, 25, 072306.	1.9	4
108	Comparison of edge turbulence characteristics between DIII-D and C-Mod simulations with XGC1. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	4

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109	Blob wakes in NSTX. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	3
110	Comparison of private flux region instability in conventional and super-X divertor configurations. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	3
111	Blob-hole correlation model for edge turbulence and comparisons with NSTX gas puff imaging data. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 075015.	2.1	2
112	Penetration of filamentary structures into the divertor region of spherical tokamaks. <i>Physics of Plasmas</i> , 2019, 26, 022505.	1.9	2
113	Recent progress in microscale modeling of RF sheaths. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	2
114	RF-transpond: A 1D coupled cold plasma wave and plasma transport model for ponderomotive force driven density modification parallel to B. <i>Computer Physics Communications</i> , 2022, 274, 108286.	7.5	2
115	Diffusiveâ€œconvective transition for scrape-off layer transport and the heat-flux width. <i>Plasma Physics and Controlled Fusion</i> , 2012, 54, 055008.	2.1	1