

Ken McClements

List of Publications by Year in descending order

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138
papers

3,446
citations

117625

34
h-index

197818

49
g-index

138
all docs

138
docs citations

138
times ranked

2350
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of the ion cyclotron emission diagnostic for the W7-X stellarator. Review of Scientific Instruments, 2021, 92, 033546.	1.3	8
2	Abel inversion of soft x-ray fluctuations associated with fast particle-driven fishbone instabilities in MAST plasmas. Plasma Research Express, 2021, 3, 034001.	0.9	1
3	Explanation of core ion cyclotron emission from beam-ion heated plasmas in ASDEX Upgrade by the magnetoacoustic cyclotron instability. Nuclear Fusion, 2021, 61, 026004.	3.5	14
4	Interpretation of electromagnetic modes in the sub-TAE frequency range in JET plasmas with elevated monotonic q-profiles. Physics of Plasmas, 2021, 28, 102511.	1.9	1
5	Overview of recent ICRF studies and RF-related wave-field measurements on ASDEX upgrade. AIP Conference Proceedings, 2020, . .	0.4	1
6	Origin of ion cyclotron emission at the proton cyclotron frequency from the core of deuterium plasmas in the ASDEX-Upgrade tokamak. Plasma Physics and Controlled Fusion, 2020, 62, 095022.	2.1	8
7	Diagnosing fast ion redistribution due to sawtooth instabilities using fast ion deuterium- $\hat{\pm}$ spectroscopy in the mega amp spherical tokamak. Nuclear Fusion, 2020, 60, 126035.	3.5	8
8	High frequency Alfvén eigenmodes detected with ion-cyclotron-emission diagnostics during NBI and ICRF heated plasmas on the ASDEX Upgrade tokamak. Nuclear Fusion, 2020, 60, 126043.	3.5	14
9	Interpretation of suprathermal emission at deuteron cyclotron harmonics from deuterium plasmas heated by neutral beam injection in the KSTAR tokamak. Nuclear Fusion, 2019, 59, 106021.	3.5	15
10	Overview of new MAST physics in anticipation of first results from MAST Upgrade. Nuclear Fusion, 2019, 59, 112011.	3.5	30
11	Core plasma ion cyclotron emission driven by fusion-born ions. Nuclear Fusion, 2019, 59, 014001.	3.5	12
12	Scenario development for the observation of alpha-driven instabilities in JET DT plasmas. Nuclear Fusion, 2018, 58, 082005.	3.5	34
13	Particle acceleration during merging-compression plasma start-up in the Mega Amp Spherical Tokamak. Plasma Physics and Controlled Fusion, 2018, 60, 025013.	2.1	5
14	Fusion product losses due to fishbone instabilities in deuterium JET plasmas. Nuclear Fusion, 2018, 58, 014003.	3.5	15
15	A rotary and reciprocating scintillator based fast-ion loss detector for the MAST-U tokamak. Review of Scientific Instruments, 2018, 89, 10I112.	1.3	11
16	Velocity-space tomography using prior information at MAST. Review of Scientific Instruments, 2018, 89, 10D125.	1.3	16
17	The effects of resonant magnetic perturbations and charge-exchange reactions on fast ion confinement and neutron emission in the Mega Amp Spherical Tokamak. Plasma Physics and Controlled Fusion, 2018, 60, 095005.	2.1	15
18	Beam-Ion Acceleration during Edge Localized Modes in the ASDEX Upgrade Tokamak. Physical Review Letters, 2018, 121, 025002.	7.8	16

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19	Nonlinear wave interactions generate high-harmonic cyclotron emission from fusion-born protons during a KSTAR ELM crash. Nuclear Fusion, 2018, 58, 096027.	3.5	19
20	Observations of core ion cyclotron emission on ASDEX Upgrade tokamak. Review of Scientific Instruments, 2018, 89, 10J101.	1.3	35
21	Observations and modelling of ion cyclotron emission observed in JET plasmas using a sub-harmonic arc detection system during ion cyclotron resonance heating. Nuclear Fusion, 2018, 58, 096020.	3.5	14
22	Energetic particles in spherical tokamak plasmas. Plasma Physics and Controlled Fusion, 2017, 59, 053001.	2.1	20
23	Overview of progress in European medium sized tokamaks towards an integrated plasma-edge/wall solution ^a. Nuclear Fusion, 2017, 57, 102014.	3.5	23
24	Overview of the JET results in support to ITER. Nuclear Fusion, 2017, 57, 102001.	3.5	150
25	Recent progress of magnetic reconnection research in the MAST spherical tokamak. Physics of Plasmas, 2017, 24, .	1.9	15
26	Investigation of merging/reconnection heating during solenoid-free startup of plasmas in the MAST Spherical Tokamak. Nuclear Fusion, 2017, 57, 056037.	3.5	18
27	Overview of recent physics results from MAST. Nuclear Fusion, 2017, 57, 102007.	3.5	16
28	Energetic particles in laboratory, space and astrophysical plasmas. Plasma Physics and Controlled Fusion, 2017, 59, 014012.	2.1	8
29	Sub-microsecond temporal evolution of edge density during edge localized modes in KSTAR tokamak plasmas inferred from ion cyclotron emission. Nuclear Fusion, 2017, 57, 124004.	3.5	28
30	Application of a non-steady-state orbit-following Monte-Carlo code to neutron modeling in the MAST spherical tokamak. Plasma Physics and Controlled Fusion, 2016, 58, 105005.	2.1	13
31	Two-fluid and magnetohydrodynamic modelling of magnetic reconnection in the MAST spherical tokamak and the solar corona. Plasma Physics and Controlled Fusion, 2016, 58, 014041.	2.1	19
32	Application of Tomographic Ion Doppler Spectroscopy to Merging Plasma Startup in the MAST Spherical Tokamak. Plasma and Fusion Research, 2016, 11, 1302093-1302093.	0.7	8
33	Electron and Ion Heating Characteristics during Magnetic Reconnection in the MAST Spherical Tokamak. Physical Review Letters, 2015, 115, 215004.	7.8	34
34	Measurements and modelling of fast-ion redistribution due to resonant MHD instabilities in MAST. Plasma Physics and Controlled Fusion, 2015, 57, 125009.	2.1	15
35	Overview of the JET results. Nuclear Fusion, 2015, 55, 104001.	3.5	50
36	Mitigation of MHD induced fast-ion redistribution in MAST and implications for MAST-Upgrade design. Nuclear Fusion, 2015, 55, 013021.	3.5	13

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37	Impurity transport driven by fishbones in MAST. Nuclear Fusion, 2015, 55, 032002.	3.5	5
38	Electron Kinetics Inferred from Observations of Microwave Bursts During Edge Localized Modes in the Mega-Amp Spherical Tokamak. Physical Review Letters, 2015, 114, 125004.	7.8	34
39	Ion cyclotron emission from fusion-born ions in large tokamak plasmas: a brief review from JET and TFTR to ITER. Plasma Physics and Controlled Fusion, 2015, 57, 044002.	2.1	23
40	Fast particle-driven ion cyclotron emission (ICE) in tokamak plasmas and the case for an ICE diagnostic in ITER. Nuclear Fusion, 2015, 55, 043013.	3.5	42
41	The effects of resonant magnetic perturbations on fast ion confinement in the Mega Amp Spherical Tokamak. Plasma Physics and Controlled Fusion, 2015, 57, 075003.	2.1	11
42	Overview of MAST results. Nuclear Fusion, 2015, 55, 104008.	3.5	16
43	Energetic ion behaviour in MAST. Plasma Physics and Controlled Fusion, 2015, 57, 014006.	2.1	28
44	Assessing the merits of resonant magnetic perturbations with different toroidal mode numbers for controlling edge localised modes. Nuclear Fusion, 2014, 54, 123003.	3.5	7
45	Investigating fusion plasma instabilities in the Mega Amp Spherical Tokamak using mega electron volt proton emissions (invited). Review of Scientific Instruments, 2014, 85, 11D701.	1.3	18
46	Self-organization during spherical torus formation by flux rope merging in the Mega Ampere Spherical Tokamak. Plasma Physics and Controlled Fusion, 2014, 56, 064009.	2.1	20
47	MAST Accomplishments and Upgrade for Fusion Next-Steps. IEEE Transactions on Plasma Science, 2014, 42, 402-414.	1.3	21
48	Overview of physics results from MAST towards ITER/DEMO and the MAST Upgrade. Nuclear Fusion, 2013, 53, 104008.	3.5	21
49	Overview of the JET results with the ITER-like wall. Nuclear Fusion, 2013, 53, 104002.	3.5	70
50	Global two-fluid simulations of geodesic acoustic modes in strongly shaped tight aspect ratio tokamak plasmas. Physics of Plasmas, 2013, 20, .	1.9	12
51	Two-fluid simulations of driven reconnection in the mega-ampere spherical tokamak. Physics of Plasmas, 2013, 20, 122302.	1.9	33
52	Fast-ion deuterium alpha spectroscopic observations of the effects of fishbones in the Mega-Ampere Spherical Tokamak. Plasma Physics and Controlled Fusion, 2013, 55, 085009.	2.1	20
53	Toroidal ripple transport of beam ions in the mega-ampere spherical tokamak. Physics of Plasmas, 2012, 19, 072514.	1.9	10
54	Understanding the Higgs mechanism. Physics World, 2012, 25, 23-24.	0.0	2

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55	CENTORI: A global toroidal electromagnetic two-fluid plasma turbulence code. Computer Physics Communications, 2012, 183, 2346-2363.	7.5	8
56	Nonlinear wave propagation and reconnection at magnetic X-points in the Hall MHD regime. Astronomy and Astrophysics, 2012, 544, A24.	5.1	21
57	Full orbit simulation of collisional transport of impurity ions in the MAST spherical tokamak. Plasma Physics and Controlled Fusion, 2011, 53, 054017.	2.1	1
58	Identifying the impact of rotation, anisotropy, and energetic particle physics in tokamaks. Plasma Physics and Controlled Fusion, 2011, 53, 074021.	2.1	32
59	Alfvén wave phase-mixing and damping in the ion cyclotron range of frequencies. Astronomy and Astrophysics, 2011, 525, A155.	5.1	12
60	Axisymmetric two-fluid plasma equilibria with momentum sources and sinks. Plasma Physics and Controlled Fusion, 2011, 53, 045009.	2.1	1
61	On steady poloidal and toroidal flows in tokamak plasmas. Physics of Plasmas, 2010, 17, 082509.	1.9	25
62	The impact of energetic particles and rotation on tokamak plasmas. Journal of Physics: Conference Series, 2010, 260, 012013.	0.4	4
63	Plasma physics in noninertial frames. Physics of Plasmas, 2009, 16, 092506.	1.9	16
64	Alfvén eigenmodes in magnetic X-point configurations with strong longitudinal fields. Journal of Plasma Physics, 2009, 75, 203-215.	2.1	2
65	The orbital dynamics and collisional transport of trace massive impurity ions in rotating tokamaks. Plasma Physics and Controlled Fusion, 2009, 51, 115009.	2.1	13
66	INERTIAL ALFVÉN WAVE ACCELERATION OF SOLAR FLARE ELECTRONS. Astrophysical Journal, 2009, 693, 1494-1499.	4.5	28
67	Test-particle simulations of collisional impurity transport in rotating spherical tokamak plasmas. Plasma Physics and Controlled Fusion, 2008, 50, 065017.	2.1	10
68	Fast Alfvén Wave Heating and Acceleration of Ions in a Nonuniform Magnetoplasma. Astrophysical Journal, 2007, 658, 631-642.	4.5	1
69	Rotation driven by fast ions in tokamaks. Physics of Plasmas, 2007, 14, .	1.9	10
70	Collisionless fast particle transport in tokamak plasmas with rotating magnetic islands. Plasma Physics and Controlled Fusion, 2007, 49, 1415-1429.	2.1	3
71	The coupling of shear and fast Alfvén waves at a magnetic X-point. Journal of Plasma Physics, 2006, 72, 571.	2.1	8
72	Toroidal and poloidal flows in single-fluid and two-fluid tokamak equilibria. Physics of Plasmas, 2006, 13, 062502.	1.9	20

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73	Collective electric field effects on the confinement of fast ions in tokamaks. <i>Physics of Plasmas</i> , 2006, 13, 042503.	1.9	24
74	Electron Acceleration at Reconnecting X-points in Solar Flares. <i>Astrophysical Journal</i> , 2005, 625, 496-505.	4.5	29
75	Surfatron and stochastic acceleration of electrons in astrophysical plasmas. <i>Journal of Plasma Physics</i> , 2005, 71, 127-141.	2.1	2
76	Fokker-Planck Modeling of Asymmetric Footpoint Hard X-ray Emission in Solar Flares. <i>Astrophysical Journal</i> , 2005, 619, 1153-1159.	4.5	9
77	Experiment on Collisionless Plasma Interaction with Applications to Supernova Remnant Physics. <i>Astrophysics and Space Science</i> , 2005, 298, 93-98.	1.4	3
78	Comment on "Variational principles for stationary one- and two-fluid equilibria of axisymmetric laboratory and astrophysical plasmas" [Phys. Plasmas 11, L81 (2004)]. <i>Physics of Plasmas</i> , 2005, 12, 064701.	1.9	3
79	Overview of MAST results. <i>Nuclear Fusion</i> , 2005, 45, S157-S167.	3.5	19
80	Improved H-mode access in connected DND in MAST. <i>Plasma Physics and Controlled Fusion</i> , 2005, 47, 843-867.	2.1	24
81	Full orbit computations of ripple-induced fusion \pm -particle losses from burning tokamak plasmas. <i>Physics of Plasmas</i> , 2005, 12, 072510.	1.9	12
82	Electron inertial effects on the resistive magnetohydrodynamic spectrum of a magnetic X-point. <i>Plasma Physics and Controlled Fusion</i> , 2004, 46, 39-60.	2.1	6
83	Experiment on collisionless plasma interaction with applications to supernova remnant physics. <i>Physics of Plasmas</i> , 2004, 11, 3386-3393.	1.9	48
84	Supernova Remnant Relevant Laser-plasma Experiments. <i>AIP Conference Proceedings</i> , 2004, , .	0.4	0
85	Integrated plasma physics modelling for the Culham steady state spherical tokamak fusion power plant. <i>Nuclear Fusion</i> , 2004, 44, 917-929.	3.5	71
86	MAST and the impact of low aspect ratio on tokamak physics. <i>Plasma Physics and Controlled Fusion</i> , 2004, 46, B477-B494.	2.1	23
87	Electron Inertial Effects on Rapid Energy Redistribution at Magnetic X-points. <i>Astrophysical Journal</i> , 2004, 609, 423-438.	4.5	15
88	Field-Guided Proton Acceleration at Reconnecting x-Points in Flares. <i>Solar Physics</i> , 2003, 214, 339-352.	2.5	43
89	Solar Flares as Cascades of Reconnecting Magnetic Loops. <i>Physical Review Letters</i> , 2003, 90, 131101.	7.8	76
90	Overview of JET results. <i>Nuclear Fusion</i> , 2003, 43, 1540-1554.	3.5	38

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91	Overview of recent experimental results on MAST. Nuclear Fusion, 2003, 43, 1665-1673.	3.5	57
92	Propagating EUV disturbances in the Solar corona: Two-wavelength observations. Astronomy and Astrophysics, 2003, 404, L1-L4.	5.1	89
93	Three-dimensional visualization of electron acceleration in a magnetized plasma. IEEE Transactions on Plasma Science, 2002, 30, 20-21.	1.3	14
94	Fast particle effects on the sawtooth stability of JET DT discharges*. Nuclear Fusion, 2002, 42, 281-289.	3.5	24
95	Neutral beam stabilization of sawtooth oscillations in JET. Plasma Physics and Controlled Fusion, 2002, 44, 205-222.	2.1	45
96	Overview of results and possibilities for fast particle research on JET. Nuclear Fusion, 2002, 42, 1014-1028.	3.5	8
97	Control of sawteeth and triggering of NTMs with ion cyclotron resonance frequency waves in JET. Nuclear Fusion, 2002, 42, 1324-1334.	3.5	40
98	Excitation of axisymmetric Alfvénic modes in Ohmic tokamak discharges. Nuclear Fusion, 2002, 42, 1155-1161.	3.5	23
99	Energetic particles in magnetic confinement systems: synergies beyond fusion. Nuclear Fusion, 2002, 42, 986-998.	3.5	2
100	Response to "Comment on "Collisionless shock and supernova remnant simulations on VULCAN" [Phys. Plasmas 9, 727 (2002)]. Physics of Plasmas, 2002, 9, 729-730.	1.9	9
101	Analysis of ion cyclotron heating and current drive at $2\omega_{cH}$ for sawtooth control in JET plasmas*. Plasma Physics and Controlled Fusion, 2002, 44, 1521-1542.	2.1	24
102	Collisionless shock and supernova remnant simulations on VULCAN. Physics of Plasmas, 2001, 8, 2439-2445.	1.9	72
103	<title>Supernova remnant simulation experiments on VULCAN</title>., 2001, 4424, 484.		0
104	Azimuthally symmetric magnetohydrodynamic and two-fluid equilibria with arbitrary flows. Monthly Notices of the Royal Astronomical Society, 2001, 323, 733-742.	4.4	33
105	Surfatron and Stochastic Acceleration of Electrons at Supernova Remnant Shocks. Physical Review Letters, 2001, 87, 255002.	7.8	80
106	Spherical tokamak power plant design issues. Fusion Engineering and Design, 2000, 48, 255-263.	1.9	9
107	Large-scale numerical simulations of ion beam instabilities in unmagnetized astrophysical plasmas. Physics of Plasmas, 2000, 7, 5171-5181.	1.9	40
108	Sawtooth Evolution during JET Ion-Cyclotron-Resonance-Heated Pulses. Physical Review Letters, 2000, 84, 1204-1207.	7.8	22

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109	Quasi-stationary high \hat{A} plasmas and fast particle instabilities in the COMPASS-D tokamak with ECRH and LHCD. Nuclear Fusion, 2000, 40, 1569-1573.	3.5	48
110	Steady state operation of spherical tokamaks. Nuclear Fusion, 2000, 40, 1223-1244.	3.5	36
111	Physics of energetic particle-driven instabilities in the START spherical tokamak. Plasma Physics and Controlled Fusion, 1999, 41, 661-678.	2.1	51
112	The role of the spherical tokamak in clarifying tokamak physics. Plasma Physics and Controlled Fusion, 1999, 41, B191-B207.	2.1	9
113	Magneto-hydro-dynamic limits in spherical tokamaks. Physics of Plasmas, 1999, 6, 1958-1968.	1.9	24
114	Ion Cyclotron Emission from JET D-T Plasmas. Physical Review Letters, 1999, 82, 2099-2102.	7.8	43
115	Interpretation of measurements of ICRF heated minority proton distributions in JET. Nuclear Fusion, 1997, 37, 473-480.	3.5	21
116	The influence of fast ions on the magnetohydrodynamic stability of negative shear profiles. Physics of Plasmas, 1997, 4, 2181-2187.	1.9	29
117	Acceleration of cosmic ray electrons by ion-excited waves at quasiperpendicular shocks. Monthly Notices of the Royal Astronomical Society, 1997, 291, 241-249.	4.4	62
118	Modeling of sawtooth destabilization during radio-frequency heating experiments in tokamak plasmas. Physics of Plasmas, 1996, 3, 2994-3003.	1.9	20
119	Interpretation of ion cyclotron emission from sub-Alfvénic fusion products in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1996, 3, 543-553.	1.9	51
120	Excitation of ion cyclotron harmonic waves in cosmic ray shock precursors. Monthly Notices of the Royal Astronomical Society, 1996, 280, 219-226.	4.4	10
121	A model for ideal $m=1$ internal kink stabilization by minority ion cyclotron resonant heating. Physics of Plasmas, 1995, 2, 1623-1636.	1.9	39
122	Alfvénic behaviour of alpha particle driven ion cyclotron emission in TFTR. Nuclear Fusion, 1995, 35, 1597-1602.	3.5	71
123	Ion cyclotron emission due to collective instability of fusion products and beam ions in TFTR and JET. Nuclear Fusion, 1995, 35, 1733-1742.	3.5	46
124	Stabilization of the ideal $m=1$ internal kink by alpha particles and ICRF heated ions. Nuclear Fusion, 1995, 35, 1761-1768.	3.5	12
125	The excitation of obliquely propagating fast Alfvén waves at fusion ion cyclotron harmonics. Physics of Plasmas, 1994, 1, 1918-1928.	1.9	96
126	A model for the generation of obliquely propagating ULF waves near the magnetic equator. Journal of Geophysical Research, 1994, 99, 23685.	3.3	48

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127	A mechanism for beam-driven excitation of ion cyclotron harmonic waves in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1994, 1, 3407-3413.	1.9	41
128	Superthermal ion cyclotron harmonic emission from fusion and space plasmas: A single physical mechanism. <i>Physica Scripta</i> , 1994, T52, 135-138.	2.5	2
129	Ion Cyclotron Emission – a Natural Diagnostic for Fusion Alpha Particles. <i>Fusion Science and Technology</i> , 1994, 25, 334-340.	0.6	6
130	Ion cyclotron harmonic wave generation by ring protons in space plasmas. <i>Journal of Geophysical Research</i> , 1993, 98, 11689-11700.	3.3	40
131	Ion cyclotron wave emission at the quasi-perpendicular bow shock. <i>Journal of Geophysical Research</i> , 1993, 98, 15531-15539.	3.3	20
132	Ion cyclotron emission measurements during JET deuterium-tritium experiments. <i>Nuclear Fusion</i> , 1993, 33, 1365-1387.	3.5	129
133	Lower hybrid resonance acceleration of electrons and ions in solar flares and the associated microwave emission. <i>Astrophysical Journal</i> , 1993, 409, 465.	4.5	48
134	The detection of wave activity in the solar corona using UV line spectra. <i>Solar Physics</i> , 1991, 131, 41-48.	2.5	32
135	Simulation studies of electron acceleration by ion ring distributions in solar flares. <i>Solar Physics</i> , 1990, 130, 229-241.	2.5	20
136	Observations of the Ca xiv resonance line during the impulsive phase of solar flares. <i>Solar Physics</i> , 1989, 123, 161-176.	2.5	18
137	The unstable modes of a two-component electron plasma. <i>Journal of Plasma Physics</i> , 1988, 40, 493-503.	2.1	3
138	The stability of electron beams in the flaring solar corona. <i>Solar Physics</i> , 1987, 109, 355-363.	2.5	5