

John C Wright

List of Publications by Year in descending order

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124
papers

2,370
citations

186265
28
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all docs

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docs citations

124
times ranked

1663
citing authors

#	ARTICLE	IF	CITATIONS
1	Physics and applications of three-ion ICRF scenarios for fusion research. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	42
2	Predictions of core plasma performance for the SPARC tokamak. <i>Journal of Plasma Physics</i> , 2020, 86, .	2.1	45
3	Overview of the SPARC tokamak. <i>Journal of Plasma Physics</i> , 2020, 86, .	2.1	181
4	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
5	3D full wave fast wave modeling with realistic antenna geometry and SOL plasma. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	8
6	Ion cyclotron range of frequency heating for SPARC. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	2
7	Fast-ion physics in SPARC. <i>Journal of Plasma Physics</i> , 2020, 86, .	2.1	17
8	Physics basis for the ICRF system of the SPARC tokamak. <i>Journal of Plasma Physics</i> , 2020, 86, .	2.1	27
9	Numerical model of the radio-frequency magnetic presheath including wall impurities. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	9
10	Impact of ICRF on the scrape-off layer and on plasma wall interactions: From present experiments to fusion reactor. <i>Nuclear Materials and Energy</i> , 2019, 18, 131-140.	1.3	34
11	A positive-definite form of bounce-averaged quasilinear velocity diffusion for the parallel inhomogeneity in a tokamak. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 025007.	2.1	4
12	VITALS: A Surrogate-Based Optimization Framework for the Accelerated Validation of Plasma Transport Codes. <i>Fusion Science and Technology</i> , 2018, 74, 65-76.	1.1	13
13	Quasilinear diffusion coefficients in a finite Larmor radius expansion for ion cyclotron heated plasmas. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	9
14	Efficient generation of energetic ions in multi-ion plasmas by radio-frequency heating. <i>Nature Physics</i> , 2017, 13, 973-978.	16.7	73
15	Recent advances in physics and technology of ion cyclotron resonance heating in view of future fusion reactors. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 054002.	2.1	12
16	Overview of the JET results in support to ITER. <i>Nuclear Fusion</i> , 2017, 57, 102001.	3.5	150
17	ICRF mode conversion in three-ion species heating experiment and in flow drive experiment on the Alcator C-Mod tokamak. <i>EPJ Web of Conferences</i> , 2017, 157, 03030.	0.3	2
18	ICRF heating schemes for the ITER non-active phase. <i>EPJ Web of Conferences</i> , 2017, 157, 03046.	0.3	15

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19	RF wave simulation for cold edge plasmas using the MFEM library. EPJ Web of Conferences, 2017, 157, 03048.	0.3	29
20	A new quasilinear formulation for ICRF plasmas in a toroidal geometry. EPJ Web of Conferences, 2017, 157, 03028.	0.3	1
21	Antenna to Core: A New Approach to RF Modelling. EPJ Web of Conferences, 2017, 157, 02011.	0.3	6
22	A general purpose tool-set for representing data relationships: Converting data into knowledge. , 2016, , .		0
23	The MPO system for automatic workflow documentation. Fusion Engineering and Design, 2016, 112, 1007-1013.	1.9	4
24	Simulation study of proposed off-midplane lower hybrid current drive in KSTAR. Plasma Physics and Controlled Fusion, 2016, 58, 075003.	2.1	5
25	MPO: A System to Document and Analyze Distributed Heterogeneous Workflows. Lecture Notes in Computer Science, 2016, , 166-170.	1.3	1
26	Effect of the scrape-off layer in AORSA full wave simulations of fast wave minority, mid/high harmonic, and helicon heating regimes. AIP Conference Proceedings, 2015, , .	0.4	3
27	Measurement and simulation of ICRF wave intensity with a recalibrated phase contrast imaging diagnostic on Alcator C-Mod. AIP Conference Proceedings, 2015, , .	0.4	0
28	Coupling an ICRF core spectral solver to an edge FEM code. AIP Conference Proceedings, 2015, , .	0.4	2
29	Alcator C-Mod: research in support of ITER and steps beyond. Nuclear Fusion, 2015, 55, 104020.	3.5	14
30	An overview of recent physics results from NSTX. Nuclear Fusion, 2015, 55, 104002.	3.5	21
31	Validation of full-wave simulations for mode conversion of waves in the ion cyclotron range of frequencies with phase contrast imaging in Alcator C-Mod. Physics of Plasmas, 2015, 22, 082502.	1.9	7
32	Time dependent evolution of RF-generated non-thermal particle distributions in fusion plasmas. Plasma Physics and Controlled Fusion, 2014, 56, 045007.	2.1	8
33	Modelling of the EAST lower-hybrid current drive experiment using GENRAY/CQL3D and TORLH/CQL3D. Plasma Physics and Controlled Fusion, 2014, 56, 125003.	2.1	20
34	20 years of research on the Alcator C-Mod tokamak. Physics of Plasmas, 2014, 21, .	1.9	88
35	Fast wave heating in the NSTX-Upgrade device. , 2014, , .		12
36	Interference effects on quasilinear diffusion of lower hybrid waves. , 2014, , .		0

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37	The effects of finite electron temperature and diffraction on lower hybrid wave propagation. Plasma Physics and Controlled Fusion, 2014, 56, 035006.	2.1	7
38	A block-tridiagonal solver with two-level parallelization for finite element-spectral codes. Computer Physics Communications, 2014, 185, 2598-2608.	7.5	6
39	The MPO API: A tool for recording scientific workflows. Fusion Engineering and Design, 2014, 89, 754-757.	1.9	2
40	Automated metadata, provenance cataloging and navigable interfaces: Ensuring the usefulness of extreme-scale data. Fusion Engineering and Design, 2014, 89, 745-749.	1.9	9
41	Overview of the JET results with the ITER-like wall. Nuclear Fusion, 2013, 53, 104002.	3.5	70
42	Overview of physics results from the conclusive operation of the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 104007.	3.5	53
43	The effects of the scattering by edge plasma density fluctuations on lower hybrid wave propagation. Plasma Physics and Controlled Fusion, 2013, 55, 074003.	2.1	39
44	Overview of experimental results and code validation activities at Alcator C-Mod. Nuclear Fusion, 2013, 53, 104004.	3.5	13
45	High non-inductive fraction H-mode discharges generated by high-harmonic fast wave heating and current drive in the National Spherical Torus Experiment. Physics of Plasmas, 2012, 19, .	1.9	22
46	Paraxial Wentzel-Kramers-Brillouin method applied to the lower hybrid wave propagation. Physics of Plasmas, 2012, 19, 082510.	1.9	19
47	Measurements of ion cyclotron range of frequencies mode converted wave intensity with phase contrast imaging in Alcator C-Mod and comparison with full-wave simulations. Physics of Plasmas, 2012, 19, .	1.9	14
48	Lower hybrid current drive at high density in the multi-pass regime. Physics of Plasmas, 2012, 19, 062505.	1.9	31
49	Benchmarking ICRF full-wave solvers for ITER. Nuclear Fusion, 2012, 52, 023023.	3.5	25
50	Overview of physics results from NSTX. Nuclear Fusion, 2011, 51, 094011.	3.5	10
51	Lower hybrid current drive in a high density diverted tokamak. AIP Conference Proceedings, 2011, , .	0.4	0
52	Plans for Lower Hybrid Current Drive Experiment using a Dielectric Loaded Waveguide Array Antenna in TST-2. AIP Conference Proceedings, 2011, , .	0.4	1
53	Lower hybrid wave propagation in tokamaks in weak and strong absorption regimes. , 2011, , .		0
54	Estimation of the ion toroidal rotation source due to momentum transfer from Lower Hybrid waves in Alcator C-Mod. AIP Conference Proceedings, 2011, , .	0.4	2

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55	HHFW Heating and Current Drive Studies of NSTX H-Mode Plasmas. AIP Conference Proceedings, 2011, , .	0.4	4
56	ICRF Mode Conversion Studies with Phase Contrast Imaging and Comparisons with Full-Wave Simulations. , 2011, , .		3
57	Progress on Quantitative Modeling of rf Sheaths. , 2011, , .		2
58	Slow Wave Excitation in the ICRF and HHFW Regimes. AIP Conference Proceedings, 2011, , .	0.4	0
59	Development of a plasma current ramp-up technique for spherical tokamaks by the lower hybrid wave. Nuclear Fusion, 2011, 51, 063017.	3.5	25
60	Investigation of lower hybrid physics through power modulation experiments on Alcator C-Mod. Physics of Plasmas, 2011, 18, .	1.9	27
61	Investigation of the validity of quasilinear theory for electron Landau damping in a tokamak using a broad-band wave effect. Physics of Plasmas, 2011, 18, 012503.	1.9	4
62	A finite element procedure for multiscale wave equations with application to plasma waves. Computers and Structures, 2010, 88, 87-94.	4.4	33
63	The lower hybrid wave cutoff: A case study in eikonal methods. Physics of Plasmas, 2010, 17, 052107.	1.9	18
64	Absorption of lower hybrid waves in the scrape off layer of a diverted tokamak. Physics of Plasmas, 2010, 17, 082508.	1.9	117
65	Challenges in Self-Consistent Full-Wave Simulations of Lower Hybrid Waves. IEEE Transactions on Plasma Science, 2010, 38, 2136-2143.	1.3	14
66	Plasma wave simulation based on a versatile finite element method solver. Physics of Plasmas, 2010, 17, .	1.9	60
67	Comparison of the Monte Carlo ion cyclotron heating model with the full-wave linear absorption model. Physics of Plasmas, 2009, 16, 052513.	1.9	4
68	Observation of ion cyclotron range of frequencies mode conversion plasma flow drive on Alcator C-Mod. Physics of Plasmas, 2009, 16, 056102.	1.9	40
69	An assessment of full wave effects on the propagation and absorption of lower hybrid waves. Physics of Plasmas, 2009, 16, .	1.9	73
70	Overview of the Alcator C-Mod Research Program. Nuclear Fusion, 2009, 49, 104014.	3.5	29
71	Full wave simulations of lower hybrid wave propagation in tokamaks. , 2009, , .		4
72	Control of Internal Profiles via LHCD on Alcator C-Mod. , 2009, , .		0

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73	Measurement of Fast Electron Transport by Lower Hybrid Modulation Experiments in Alcator C-Mod. , 2009, , .		2
74	Full-Wave Studies of Lower Hybrid Wave Propagation in Tokamaks. , 2009, , .		0
75	Observations of Lower Hybrid Wave Absorption in the Scrape Off Layer of a Diverted Tokamak. AIP Conference Proceedings, 2009, , .	0.4	7
76	ICRF Mode Conversion Flow Drive on Alcator C-Mod and Projections to Other Tokamaks. , 2009, , .		2
77	Comparison of ICRF-Induced Ion Diffusion Coefficients Calculated with the DC and AORSA Codes. , 2009, , .		2
78	Reconstructing lower hybrid fields from ray tracing data. , 2009, , .		1
79	Measurements of Mode Converted Ion Cyclotron Wave with Phase Contrast Imaging in Alcator C-Mod and Comparisons with Synthetic PCI Simulations in TORIC. , 2009, , .		0
80	Lower hybrid heating and current drive on the Alcator C-Mod tokamak. Nuclear Fusion, 2009, 49, 115015.	3.5	38
81	Overview of results from the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2009, 49, 104016.	3.5	41
82	Advances in simulation of wave interactions with extended MHD phenomena. Journal of Physics: Conference Series, 2009, 180, 012054.	0.4	2
83	Simulation of high-power electromagnetic wave heating in the ITER burning plasma. Physics of Plasmas, 2008, 15, 072513.	1.9	39
84	Lower hybrid current drive experiments on Alcator C-Mod: Comparison with theory and simulation. Physics of Plasmas, 2008, 15, .	1.9	50
85	Simulation of wave interactions with MHD. Journal of Physics: Conference Series, 2008, 125, 012039.	0.4	2
86	Full-wave Electromagnetic Field Simulations of Lower Hybrid Waves in Tokamaks. AIP Conference Proceedings, 2007, , .	0.4	0
87	Full-wave Simulations of LH wave propagation in toroidal plasma with non-Maxwellian electron distributions. AIP Conference Proceedings, 2007, , .	0.4	5
88	LHCD Scenarios for Spherical Tokamak Plasmas. AIP Conference Proceedings, 2007, , .	0.4	0
89	Quasilinear Evolution of Multiple Non-thermal Ion Distributions in ICRF Heating. AIP Conference Proceedings, 2007, , .	0.4	0
90	Mode Conversion Current Drive studies on Alcator C-Mod. AIP Conference Proceedings, 2007, , .	0.4	0

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91	ICRF Heating with α in Alcator C-Mod. AIP Conference Proceedings, 2007, , .	0.4	0
92	Lower Hybrid Current Drive Experiments in Alcator C-Mod. AIP Conference Proceedings, 2007, , .	0.4	1
93	Stochastic RF Heating of Thermal Ions. AIP Conference Proceedings, 2007, , .	0.4	0
94	Physics Research in the SciDAC Center for Wave-Plasma Interactions. AIP Conference Proceedings, 2007, , .	0.4	3
95	Sawtooth period changes with mode conversion current drive on Alcator C-Mod. Plasma Physics and Controlled Fusion, 2007, 49, 219-235.	2.1	15
96	Overview of the Alcator C-MOD research programme. Nuclear Fusion, 2007, 47, S598-S607.	3.5	9
97	Experimental and numerical characterization of ion-cyclotron heated protons on the Alcator C-Mod tokamak. Plasma Physics and Controlled Fusion, 2007, 49, 873-904.	2.1	17
98	Wave-Particle Studies in the Ion Cyclotron and Lower Hybrid Ranges of Frequencies in Alcator C-Mod. Fusion Science and Technology, 2007, 51, 401-436.	1.1	72
99	Integrated physics advances in simulation of wave interactions with extended MHD phenomena. Journal of Physics: Conference Series, 2007, 78, 012003.	0.4	3
100	Evolution of nonthermal particle distributions in radio frequency heating of fusion plasmas. Journal of Physics: Conference Series, 2007, 78, 012006.	0.4	7
101	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
102	Simulation of fast Alfvén wave interaction with beam ions over a range of cyclotron harmonics in DIII-D tokamak. Nuclear Fusion, 2006, 46, S409-S415.	3.5	8
103	Global-wave solutions with self-consistent velocity distributions in ion cyclotron heated plasmas. Nuclear Fusion, 2006, 46, S397-S408.	3.5	34
104	Electromagnetic mode conversion: understanding waves that suddenly change their nature. Journal of Physics: Conference Series, 2005, 16, 35-39.	0.4	3
105	Self-Consistent Full-Wave / Fokker-Planck Calculations for Ion Cyclotron Heating in Non-Maxwellian Plasmas. AIP Conference Proceedings, 2005, , .	0.4	2
106	Monte-Carlo Orbit/Full Wave Simulation of Fast Alfvén Wave (FW) Damping on Resonant Ions in Tokamaks. AIP Conference Proceedings, 2005, , .	0.4	1
107	Numerical Studies of poloidal field effects on ICRF mode conversion. AIP Conference Proceedings, 2005, , .	0.4	2
108	Overview of the Alcator C-Mod program. Nuclear Fusion, 2005, 45, S109-S117.	3.5	28

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109	Velocity-Space Diffusion Coefficients Due to Full-Wave ICRF Fields in Toroidal Geometry. AIP Conference Proceedings, 2005, , .	0.4	2
110	Full-wave Electromagnetic Field Simulations of Lower Hybrid Waves in Tokamaks. AIP Conference Proceedings, 2005, , .	0.4	6
111	Ion cyclotron range of frequency mode conversion physics in Alcator C-Mod: Experimental measurements and modeling. Physics of Plasmas, 2005, 12, 056104.	1.9	29
112	Observation and modelling of ion cyclotron range of frequencies waves in the mode conversion region of Alcator C-Mod. Plasma Physics and Controlled Fusion, 2005, 47, 1207-1228.	2.1	29
113	Full wave simulations of fast wave mode conversion and lower hybrid wave propagation in tokamaks. Physics of Plasmas, 2004, 11, 2473-2479.	1.9	77
114	Ultrahigh resolution simulations of mode converted ion cyclotron waves and lower hybrid waves. Computer Physics Communications, 2004, 164, 330-335.	7.5	9
115	Investigation of ion cyclotron range of frequencies mode conversion at the ion-ion hybrid layer in Alcator C-Mod. Physics of Plasmas, 2004, 11, 2466-2472.	1.9	17
116	Sheared Poloidal Flow Driven by Mode Conversion in Tokamak Plasmas. Physical Review Letters, 2003, 90, 195001.	7.8	64
117	Study of Ion Cyclotron Range of Frequencies Mode Conversion in the Alcator C-Mod Tokamak. AIP Conference Proceedings, 2003, , .	0.4	1
118	Ultrahigh Resolution Simulations of Mode Converted ICRF and LH Waves with a Spectral Full Wave Code. AIP Conference Proceedings, 2003, , .	0.4	1
119	Ion cyclotron range of frequencies mode conversion electron heating in deuterium-hydrogen plasmas in the Alcator C-Mod tokamak. Plasma Physics and Controlled Fusion, 2003, 45, 1013-1026.	2.1	27
120	A direct calculation of current drive by fast magnetosonic waves in toroidal geometry. Nuclear Fusion, 1997, 37, 1349-1353.	3.5	9
121	Instruments, 1995, 66, 1180-1183.	1.3	3
122	Scientific Instruments, 1995, 66, 590-590.	1.3	0
123	Recent progress in modeling ICRF-edge plasma interactions with application to ASDEX Upgrade. Nuclear Fusion, 0, , .	3.5	11
124	Argon Pumpout by ICRF Waves in C-Mod L- and I-mode Plasmas. Nuclear Fusion, 0, , .	3.5	1