

James Wilson

List of Publications by Year in descending order

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125
papers

2,104
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172207

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127
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127
docs citations

127
times ranked

1185
citing authors

#	ARTICLE	IF	CITATIONS
1	Absorption of lower hybrid waves in the scrape off layer of a diverted tokamak. <i>Physics of Plasmas</i> , 2010, 17, 082508.	0.7	117
2	Fusion plasma experiments on TFTR: A 20 year retrospective. <i>Physics of Plasmas</i> , 1998, 5, 1577-1589.	0.7	91
3	Review of deuterium-tritium results from the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1995, 2, 2176-2188.	0.7	89
4	20 years of research on the Alcator C-Mod tokamak. <i>Physics of Plasmas</i> , 2014, 21, .	0.7	88
5	Toroidal Alfvén eigenmode-induced ripple trapping. <i>Physics of Plasmas</i> , 1995, 2, 2871-2873.	0.7	87
6	Wave-Particle Studies in the Ion Cyclotron and Lower Hybrid Ranges of Frequencies in Alcator C-Mod. <i>Fusion Science and Technology</i> , 2007, 51, 401-436.	0.6	72
7	High harmonic fast wave heating efficiency enhancement and current drive at longer wavelength on the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2008, 15, .	0.7	70
8	Direct Observation of Ion-Bernstein-Wave-Induced Poloidal Flow in TFTR. <i>Physical Review Letters</i> , 1999, 82, 331-334.	2.9	66
9	High-Harmonic Fast-Wave Power Flow along Magnetic Field Lines in the Scrape-Off Layer of NSTX. <i>Physical Review Letters</i> , 2012, 109, 045001.	2.9	55
10	Observation of Self-Generated Flows in Tokamak Plasmas with Lower-Hybrid-Driven Current. <i>Physical Review Letters</i> , 2009, 102, 035002.	2.9	54
11	Lower hybrid current drive experiments on Alcator C-Mod: Comparison with theory and simulation. <i>Physics of Plasmas</i> , 2008, 15, .	0.7	50
12	Correlations of heat and momentum transport in the TFTR tokamak. <i>Physics of Fluids B</i> , 1990, 2, 1300-1305.	1.7	47
13	Initial physics results from the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2001, 8, 1977-1987.	0.7	46
14	Mode Conversion Heating and Current Drive Experiments in TFTR. <i>Physical Review Letters</i> , 1996, 76, 764-767.	2.9	45
15	Formation and Stability of Impurity “Snakes” in Tokamak Plasmas. <i>Physical Review Letters</i> , 2013, 110, 065006.	2.9	43
16	Ion cyclotron range of frequencies stabilization of sawteeth on Tokamak Fusion Test Reactor. <i>Physics of Fluids B</i> , 1992, 4, 2155-2164.	1.7	41
17	The effects of the scattering by edge plasma density fluctuations on lower hybrid wave propagation. <i>Plasma Physics and Controlled Fusion</i> , 2013, 55, 074003.	0.9	39
18	Ion Cyclotron Range of Frequency Heating of a Deuterium-Tritium Plasma via the Second-Harmonic Tritium Cyclotron Resonance. <i>Physical Review Letters</i> , 1995, 75, 842-845.	2.9	37

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19	Full wave effects on the lower hybrid wave spectrum and driven current profile in tokamak plasmas. Physics of Plasmas, 2011, 18, 080705.	0.7	36
20	High- β operation and magnetohydrodynamic activity on the TFTR tokamak. Physics of Fluids B, 1990, 2, 1287-1290.	1.7	35
21	Advances in high-harmonic fast wave physics in the National Spherical Torus Experiment. Physics of Plasmas, 2010, 17, 056114.	0.7	34
22	Role of Alfvén instabilities in energetic ion transport. Physics of Plasmas, 1999, 6, 1880-1884.	0.7	33
23	Investigation of performance limiting phenomena in a variable phase ICRF antenna in Alcator C-Mod. Plasma Physics and Controlled Fusion, 2004, 46, 1479-1491.	0.9	33
24	Effect of plasma shaping on performance in the National Spherical Torus Experiment. Physics of Plasmas, 2006, 13, 056122.	0.7	33
25	Nature of Monster Sawteeth and Their Relationship to Alfvén Instabilities in Tokamaks. Physical Review Letters, 2000, 84, 1212-1215.	2.9	31
26	Exploration of high harmonic fast wave heating on the National Spherical Torus Experiment. Physics of Plasmas, 2003, 10, 1733-1738.	0.7	31
27	Lower hybrid current drive at high density in the multi-pass regime. Physics of Plasmas, 2012, 19, 062505.	0.7	31
28	Design, and initial experiment results of a novel LH launcher on Alcator C-Mod. Nuclear Fusion, 2011, 51, 103024.	1.6	30
29	Anomalous losses of deuterium-deuterium fusion products in the Tokamak Fusion Test Reactor*. Physics of Plasmas, 1994, 1, 1469-1478.	0.7	29
30	Engineering Design of the National Spherical Tokamak Experiment. Fusion Science and Technology, 1996, 30, 1337-1341.	0.6	29
31	Deuterium-tritium plasmas in novel regimes in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1997, 4, 1714-1724.	0.7	27
32	Edge ion heating by launched high harmonic fast waves in the National Spherical Torus Experiment. Physics of Plasmas, 2005, 12, 056108.	0.7	27
33	Investigation of lower hybrid physics through power modulation experiments on Alcator C-Mod. Physics of Plasmas, 2011, 18, .	0.7	27
34	Ion cyclotron range of frequency experiments in the Tokamak Fusion Test Reactor with fast waves and mode converted ion Bernstein waves. Physics of Plasmas, 1996, 3, 2006-2012.	0.7	26
35	Alpha particle losses from Tokamak Fusion Test Reactor deuterium-tritium plasmas. Physics of Plasmas, 1996, 3, 1875-1880.	0.7	25
36	Fast electron temperature measurements using a "multicolor" optical soft x-ray array. Journal of Applied Physics, 2007, 102, 073304.	1.1	25

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37	Progress on ion cyclotron range of frequencies heating physics and technology in support of the International Tokamak Experimental Reactor. <i>Physics of Plasmas</i> , 2015, 22, .	0.7	25
38	Status and Plans for TFTR. <i>Fusion Science and Technology</i> , 1992, 21, 1324-1331.	0.6	23
39	On the formation and stability of long-lived impurity-ion snakes in Alcator C-Mod. <i>Nuclear Fusion</i> , 2013, 53, 043019.	1.6	23
40	Parametric Decay During HHFW on NSTX. <i>AIP Conference Proceedings</i> , 2005, , .	0.3	22
41	High non-inductive fraction H-mode discharges generated by high-harmonic fast wave heating and current drive in the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2012, 19, .	0.7	22
42	The effects of ICRF heating on plasma edge conditions in PLT. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1985, 3, 1211-1217.	0.9	19
43	Reflectometer sensing of rf waves in front of the high harmonic fast wave antenna on NSTX. <i>Review of Scientific Instruments</i> , 2006, 77, 10E933.	0.6	19
44	Paraxial Wentzelâ€“Kramersâ€“Brillouin method applied to the lower hybrid wave propagation. <i>Physics of Plasmas</i> , 2012, 19, 082510.	0.7	19
45	Highâ€“Q plasmas in the TFTR tokamak. <i>Physics of Fluids B</i> , 1991, 3, 2308-2314.	1.7	17
46	Advanced ST plasma scenario simulations for NSTX. <i>Nuclear Fusion</i> , 2005, 45, 814-824.	1.6	14
47	Recent Fast Wave Coupling and Heating Studies on NSTX, with Possible Implications for ITER. , 2009, , .		14
48	The contribution of radio-frequency rectification to field-aligned losses of high-harmonic fast wave power to the divertor in the National Spherical Torus eXperiment. <i>Physics of Plasmas</i> , 2015, 22, 042506.	0.7	14
49	Overview of experimental results and code validation activities at Alcator C-Mod. <i>Nuclear Fusion</i> , 2013, 53, 104004.	1.6	13
50	Confinement analysis in lowâ€“confinement mode of hydrogen isotope experiments on the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1996, 3, 4521-4535.	0.7	12
51	Loading and Asymmetry Measurements and Modeling for the National Spherical Torus Experiment Ion Cyclotron Range of Frequencies System. <i>Fusion Science and Technology</i> , 2003, 43, 503-513.	0.6	11
52	Current ramp-up with lower hybrid current drive in EAST. <i>Physics of Plasmas</i> , 2012, 19, 122507.	0.7	10
53	Experiments utilizing ion cyclotron range of frequencies heating on the TFTR tokamak. <i>Physics of Fluids B</i> , 1991, 3, 2270-2276.	1.7	9
54	Recent Results on Coupling Fast Waves to High Performance Plasmas on DIII-D. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	9

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55	Non-resonant destabilization of (1/1) internal kink mode by suprathreshold electron pressure. Physics of Plasmas, 2015, 22, 050701.	0.7	9
56	Measurements of edge density profile modifications during IBW on TFTR. , 1997, , .		8
57	Preparations for deuterium-tritium experiments on the Tokamak Fusion Test Reactor*. Physics of Plasmas, 1994, 1, 1560-1567.	0.7	7
58	Investigation of RF absorption by fast ions and high temperature plasmas using the "METS95" wave analysis tool. , 1997, , .		7
59	Observations of Lower Hybrid Wave Absorption in the Scrape Off Layer of a Diverted Tokamak. AIP Conference Proceedings, 2009, , .	0.3	7
60	Effects of thermal expansion of the crystal lattice on x-ray crystal spectrometers used for fusion research. Plasma Physics and Controlled Fusion, 2013, 55, 125011.	0.9	7
61	Electron Energy Confinement For HHFW Heating and Current Drive Phasing on NSTX. AIP Conference Proceedings, 2005, , .	0.3	6
62	Resonance in fast-wave amplitude in the periphery of cylindrical plasmas and application to edge losses of wave heating power in tokamaks. Physics of Plasmas, 2016, 23, 070702.	0.7	6
63	TFTR ICRF antenna design. AIP Conference Proceedings, 1987, , .	0.3	4
64	A folded waveguide ICRF antenna for PBX-M and TFTR. AIP Conference Proceedings, 1996, , .	0.3	4
65	ICRF in D-T plasmas in TFTR. , 1996, , .		4
66	Mode conversion heating and current drive in TFTR. , 1997, , .		4
67	Lower Hybrid Coupling Experiments on Alcator C-Mod. AIP Conference Proceedings, 2007, , .	0.3	4
68	Plasma wave simulation based on versatile FEM solver on Alcator C-mod. AIP Conference Proceedings, 2009, , .	0.3	4
69	Recent Improvements in Fast Wave Heating in NSTX. , 2009, , .		4
70	Modification of Current Profile, Toroidal Rotation and Pedestal by Lower Hybrid Waves in Alcator C-Mod. AIP Conference Proceedings, 2009, , .	0.3	4
71	Scaling of Confinement with Isotopic Content in Deuterium and Tritium Plasmas. Physical Review Letters, 1997, 79, 1050-1053.	2.9	3
72	High-Harmonic Fast-Wave heating in NSTX. AIP Conference Proceedings, 2001, , .	0.3	3

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73	Analysis of high-harmonic fast wave propagation and absorption on NSTX. AIP Conference Proceedings, 2001, , .	0.3	3
74	The ITER-like ICRH Launcher Project For JET. AIP Conference Proceedings, 2003, , .	0.3	3
75	Integrated numerical design of an innovative Lower Hybrid launcher for Alcator C-Mod. , 2009, , .		3
76	Towards identifying the mechanisms underlying field-aligned edge-loss of HHFW power on NSTX. , 2014, , .		3
77	ICRF heating experiments on the PLT tokamak. AIP Conference Proceedings, 1985, , .	0.3	2
78	High harmonic fast wave heating and current drive on NSTX-system and experimental plan. , 1999, , .		2
79	Recent ICRF results on Alcator C-Mod. AIP Conference Proceedings, 2001, , .	0.3	2
80	Measurement of Fast Electron Transport by Lower Hybrid Modulation Experiments in Alcator C-Mod. , 2009, , .		2
81	Lower Hybrid Wave Induced SOL Emissivity Variation at High Density on the Alcator C-Mod Tokamak. AIP Conference Proceedings, 2011, , .	0.3	2
82	Mission and Readiness Assessment for Fusion Nuclear Facilities. Fusion Science and Technology, 2013, 64, 463-472.	0.6	2
83	SPIRAL field mapping on NSTX for comparison to divertor RF heat deposition. , 2014, , .		2
84	Microwave reflectometry for ICRF coupling studies on TFTR. AIP Conference Proceedings, 1994, , .	0.3	1
85	Fast wave direct electron heating in TFTR. AIP Conference Proceedings, 1994, , .	0.3	1
86	Performance of ICRF-heated D-T plasmas fueled by neutral beam injection in TFTR. , 1996, , .		1
87	Computational model for fast wave current drive. , 1996, , .		1
88	Generalized theory of ICRF convection and modeling of observed density profile modifications on TFTR. , 1996, , .		1
89	Role of plasma edge in the direct launch Ion Bernstein Wave experiment in TFTR. , 1997, , .		1
90	Heating and current drive on NSTX. , 1997, , .		1

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91	Lower Hybrid Current Drive Experiments in Alcator C-Mod. AIP Conference Proceedings, 2007, , .	0.3	1
92	The Effect of ELMs on HHFW Heating of NBI Generated H-modes. AIP Conference Proceedings, 2011, , .	0.3	1
93	Comparison of bounce-averaged quasilinear theory with charge exchange measurements during minority fundamental and majority second harmonic ICRF heating in PLT. AIP Conference Proceedings, 1985, , .	0.3	0
94	The MICADO-A Multi-ion species confinement analysis code for ICRF and IBW heating experiments. AIP Conference Proceedings, 1985, , .	0.3	0
95	ICRF coupling with a ridged waveguide on PLT. AIP Conference Proceedings, 1987, , .	0.3	0
96	Visible spectroscopy on RF heated discharges in the Princeton large Torus tokamak. AIP Conference Proceedings, 1987, , .	0.3	0
97	Suppression of large amplitude driven sawteeth by lower hybrid current drive. AIP Conference Proceedings, 1987, , .	0.3	0
98	Design of the TFTR rf probe array (abstract). Review of Scientific Instruments, 1988, 59, 1890-1890.	0.6	0
99	ICRF heating on TFTR with the ORNL antenna. AIP Conference Proceedings, 1989, , .	0.3	0
100	DT simulation of ICRF heated supershots in TFTR using TRANSP. AIP Conference Proceedings, 1994, , .	0.3	0
101	Modeling of high-power ICRF heating experiments on TFTR. AIP Conference Proceedings, 1994, , .	0.3	0
102	Regimes for electron heating via mode conversion in TFTR. AIP Conference Proceedings, 1994, , .	0.3	0
103	Deuterium-tritium experiments on TFTR. AIP Conference Proceedings, 1995, , .	0.3	0
104	Evidence of coupling between toroidal Alfvén eigenmodes and kinetic Alfvén waves. , 1996, , .		0
105	TRANSP modeling of minority ion sawtooth mixing in ICRF+NBI heated discharges in TFTR. , 1996, , .		0
106	Majority ion heating near the ion-ion hybrid layer in tokamaks. AIP Conference Proceedings, 1996, , .	0.3	0
107	Initial results from a folded waveguide ICRF antenna development project. , 1997, , .		0
108	Correlation between excitation of Alfvén modes and degradation of ICRF heating efficiency in TFTR. , 1997, , .		0

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109	Role of Alfvén instabilities in energetic ion transport. , 1999, , .		0
110	RF experiments on spherical torus plasmas. , 1999, , .		0
111	Observation of modes at frequencies near the second Alfvén gap in TFTR. , 1999, , .		0
112	ICRF heating in Alcator C-Mod: Present status and future prospects. , 1999, , .		0
113	Profile modifications resulting from early high-harmonic fast wave heating in NSTX. AIP Conference Proceedings, 2001, , .	0.3	0
114	Mode conversion heating scenarios for the National Compact Stellarator experiment. AIP Conference Proceedings, 2001, , .	0.3	0
115	Modeling the ICH antenna operation on Alcator C-Mod. AIP Conference Proceedings, 2001, , .	0.3	0
116	Improvement for lower hybrid coupler with step transformers and power dividers. , 0, , .		0
117	ICRF Heating with \tilde{I}_{ci} in Alcator C-Mod. AIP Conference Proceedings, 2007, , .	0.3	0
118	Stochastic RF Heating of Thermal Ions. AIP Conference Proceedings, 2007, , .	0.3	0
119	Control of Internal Profiles via LHCD on Alcator C-Mod. , 2009, , .		0
120	Simulation results for new NSTX HHFW antenna straps design by using microwave studio. , 2009, , .		0
121	Slow Wave Excitation in the ICRF and HHFW Regimes. AIP Conference Proceedings, 2011, , .	0.3	0
122	New IQ demodulator development in diagnostic equipment for fusion energy research. , 2011, , .		0
123	Phase coherence of parametric-decay modes during high-harmonic fast-wave heating in the National Spherical Torus Experiment. Physics of Plasmas, 2016, 23, 062519.	0.7	0
124	Potential Impacts of Liquid-Metal Plasma-Facing Components on Heating and Current Drive Actuators for a Fusion Nuclear Science Facility. Fusion Science and Technology, 2020, 76, 53-61.	0.6	0
125	10.1063/1.3371956.1. , 2010, , .		0