

Eric Fredrickson

List of Publications by Year in descending order

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102
papers

3,344
citations

136740

32
h-index

161609

54
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106
all docs

106
docs citations

106
times ranked

1298
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of Nonlinear Neoclassical Pressure-Gradient-Driven Tearing Modes in TFTR. Physical Review Letters, 1995, 74, 4663-4666.	2.9	361
2	Direct Observation of the Resistive Wall Mode in a Tokamak and Its Interaction with Plasma Rotation. Physical Review Letters, 1999, 82, 3811-3814.	2.9	150
3	Off-Axis Sawteeth and Double-Tearing Reconnection in Reversed Magnetic Shear Plasmas in TFTR. Physical Review Letters, 1996, 77, 3553-3556.	2.9	147
4	Intense Geodesic Acousticlike Modes Driven by Suprathermal Ions in a Tokamak Plasma. Physical Review Letters, 2008, 101, 185001.	2.9	132
5	Fast particle finite orbit width and Larmor radius effects on low-n toroidicity induced Alfvén eigenmode excitation. Physics of Plasmas, 1999, 6, 2802-2807.	0.7	99
6	Fusion plasma experiments on TFTR: A 20 year retrospective. Physics of Plasmas, 1998, 5, 1577-1589.	0.7	91
7	Measurements and modeling of Alfvén eigenmode induced fast ion transport and loss in DIII-D and ASDEX Upgrade. Physics of Plasmas, 2011, 18, .	0.7	90
8	Collective fast ion instability-induced losses in National Spherical Tokamak Experiment. Physics of Plasmas, 2006, 13, 056109.	0.7	89
9	Observation of Compressional Alfvén Modes During Neutral-Beam Heating on the National Spherical Torus Experiment. Physical Review Letters, 2001, 87, 145001.	2.9	77
10	Chapter 2: Magnetic Diagnostics. Fusion Science and Technology, 2008, 53, 304-334.	0.6	76
11	Beta-induced Alfvén-acoustic eigenmodes in National Spherical Torus Experiment and DIII-D driven by beam ions. Physics of Plasmas, 2009, 16, .	0.7	75
12	Tomography of full sawtooth crashes on the Tokamak Fusion Test Reactor. Physics of Plasmas, 1996, 3, 1647-1655.	0.7	65
13	A threshold for excitation of neoclassical tearing modes. Physics of Plasmas, 1996, 3, 3379-3385.	0.7	63
14	Modeling fast-ion transport during toroidal Alfvén eigenmode avalanches in National Spherical Torus Experiment. Physics of Plasmas, 2009, 16, 122505.	0.7	59
15	Excitation of Alfvén cyclotron instability by charged fusion products in tokamaks. Physics of Plasmas, 1995, 2, 1961-1971.	0.7	58
16	Wave driven fast ion loss in the National Spherical Torus Experiment. Physics of Plasmas, 2003, 10, 2852-2862.	0.7	58
17	Experimental studies on fast-ion transport by Alfvén wave avalanches on the National Spherical Torus Experiment. Physics of Plasmas, 2009, 16, .	0.7	56
18	Self-consistent equilibrium model of low aspect-ratio toroidal plasma with energetic beam ions. Physics of Plasmas, 2003, 10, 3240-3251.	0.7	53

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19	Observation of spontaneous neoclassical tearing modes. <i>Physics of Plasmas</i> , 2002, 9, 548-559.	0.7	47
20	\hat{I}^2 suppression of Alfvén cascade modes in the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2007, 14, .	0.7	41
21	Alfvén eigenmodes in reversed shear plasmas in JT-60U negative-ion-based neutral beam injection discharges. <i>Physics of Plasmas</i> , 2005, 12, 082509.	0.7	40
22	1.5D quasilinear model and its application on beams interacting with Alfvén eigenmodes in DIII-D. <i>Physics of Plasmas</i> , 2012, 19, 092511.	0.7	39
23	The internal kink mode in an anisotropic flowing plasma with application to modeling neutral beam injected sawtooth discharges. <i>Physics of Plasmas</i> , 2003, 10, 1034-1047.	0.7	38
24	Investigation of global Alfvén instabilities in the Tokamak Fusion Test Reactor. <i>Physics of Fluids B</i> , 1992, 4, 2122-2126.	1.7	37
25	\hat{I}^2 limit disruptions in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1995, 2, 4216-4229.	0.7	37
26	Transport with reversed shear in the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2007, 14, 056119.	0.7	37
27	Beam ion driven instabilities in the National Spherical Tokamak Experiment. <i>Physics of Plasmas</i> , 2004, 11, 2586-2593.	0.7	36
28	Coupling of global toroidal Alfvén eigenmodes and reversed shear Alfvén eigenmodes in DIII-D. <i>Physics of Plasmas</i> , 2007, 14, 056102.	0.7	36
29	Neoclassical tearing modes in Tokamak Fusion Test Reactor experiments. I. Measurements of magnetic islands and \hat{I}^2 . <i>Physics of Plasmas</i> , 1998, 5, 1076-1084.	0.7	35
30	High-frequency core localized modes in neutral beam heated plasmas on TFTR. <i>Physics of Plasmas</i> , 1996, 3, 593-605.	0.7	33
31	Toroidal Alfvén eigenmodes in TFTR deuterium-tritium plasmas. <i>Physics of Plasmas</i> , 1998, 5, 1703-1711.	0.7	33
32	Role of Alfvén instabilities in energetic ion transport. <i>Physics of Plasmas</i> , 1999, 6, 1880-1884.	0.7	33
33	Characterization of small, Type V edge-localized modes in the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2006, 13, 092510.	0.7	33
34	Effect of plasma shaping on performance in the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2006, 13, 056122.	0.7	33
35	Excitation of Alfvén eigenmodes by low energy beam ions in the DIII-D and JET tokamaks. <i>Physics of Plasmas</i> , 2008, 15, 056107.	0.7	33
36	Measurements of the radial structure and poloidal spectra of toroidal Alfvén eigenmodes in the Tokamak Fusion Test Reactor. <i>Physics of Fluids B</i> , 1992, 4, 3707-3712.	1.7	32

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37	Measuring $\hat{\Gamma}^2$ from electron temperature fluctuations in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1998, 5, 450-454.	0.7	31
38	Nature of Monster Sawteeth and Their Relationship to Alfvén Instabilities in Tokamaks. Physical Review Letters, 2000, 84, 1212-1215.	2.9	31
39	Anomalous losses of deuterium–deuterium fusion products in the Tokamak Fusion Test Reactor*. Physics of Plasmas, 1994, 1, 1469-1478.	0.7	29
40	Energetic particle-driven compressional Alfvén eigenmodes and prospects for ion cyclotron emission studies in fusion plasmas. New Journal of Physics, 2016, 18, 105010.	1.2	29
41	Phenomenology of compressional Alfvén eigenmodes. Physics of Plasmas, 2004, 11, 3653-3659.	0.7	28
42	Deuterium–tritium plasmas in novel regimes in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1997, 4, 1714-1724.	0.7	27
43	H-mode threshold and dynamics in the National Spherical Torus Experiment. Physics of Plasmas, 2003, 10, 1755-1764.	0.7	27
44	Mode–particle resonances during near-tangential neutral beam injection in the Tokamak Fusion Test Reactor. Physics of Fluids B, 1990, 2, 1584-1588.	1.7	26
45	First Observation of Alpha Particle Loss Induced by Kinetic Ballooning Modes in TFTR Deuterium-Tritium Experiments. Physical Review Letters, 1996, 76, 1071-1074.	2.9	26
46	Alpha particle losses from Tokamak Fusion Test Reactor deuterium–tritium plasmas. Physics of Plasmas, 1996, 3, 1875-1880.	0.7	25
47	HINST: A two-dimensional code for high-n toroidicity induced Alfvén eigenmodes stability. Physics of Plasmas, 1998, 5, 3389-3397.	0.7	25
48	Tokamak Fusion Test Reactor charge exchange atom spectrometry using a natural diamond detector. Review of Scientific Instruments, 1999, 70, 1107-1110.	0.6	24
49	Saturation of alpha particle driven instability in Tokamak Fusion Test Reactor. Physics of Plasmas, 1999, 6, 629-632.	0.7	24
50	Emission in the ion cyclotron range of frequencies (ICE) on NSTX and NSTX-U. Physics of Plasmas, 2019, 26, .	0.7	23
51	Nonlinear simulations of beam-driven compressional Alfvén eigenmodes in NSTX. Physics of Plasmas, 2017, 24, .	0.7	22
52	Investigation of ballooning modes in high poloidal beta plasmas in the Tokamak Fusion Test Reactor*. Physics of Fluids B, 1993, 5, 2571-2577.	1.7	21
53	Effective temperatures, sawtooth mixing, and stochastic diffusion ripple loss of fast H+ minority ions driven by ion cyclotron heating in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1999, 6, 2430-2436.	0.7	21
54	Alfvén cascade modes at high $\hat{\Gamma}^2$ in the National Spherical Torus Experiment. Physics of Plasmas, 2008, 15, .	0.7	20

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55	Theory and observation of the onset of nonlinear structures due to eigenmode destabilization by fast ions in tokamaks. <i>Physics of Plasmas</i> , 2017, 24, 122508.	0.7	20
56	Image reconstructions of ECE and x-ray signals for high β^2 plasmas on TFTR. <i>Review of Scientific Instruments</i> , 1990, 61, 3265-3267.	0.6	19
57	Tomography of (2, 1) and (3, 2) magnetic island structures on Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1996, 3, 2631-2640.	0.7	19
58	Compressional Alfvén eigenmode dispersion in low aspect ratio plasmas. <i>Physics of Plasmas</i> , 2002, 9, 3483-3488.	0.7	19
59	Non-linear modulation of short wavelength compressional Alfvén eigenmodes. <i>Physics of Plasmas</i> , 2013, 20, 042112.	0.7	18
60	Numerical study of Alfvén eigenmodes in the Experimental Advanced Superconducting Tokamak. <i>Physics of Plasmas</i> , 2014, 21, .	0.7	18
61	High- Q plasmas in the TFTR tokamak. <i>Physics of Fluids B</i> , 1991, 3, 2308-2314.	1.7	17
62	Effects of toroidal rotation shear on toroidicity-induced Alfvén eigenmodes in the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2010, 17, 122501.	0.7	17
63	The stability of advanced operational regimes on the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1997, 4, 1589-1595.	0.7	16
64	Alpha-driven magnetohydrodynamics (MHD) and MHD-induced alpha loss in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1997, 4, 1610-1616.	0.7	16
65	Trapped electron stabilization of ballooning modes in low aspect ratio toroidal plasmas. <i>Physics of Plasmas</i> , 2004, 11, 4784-4795.	0.7	15
66	Numerical simulations of global Alfvén eigenmodes excitation and stabilization in NSTX-U. <i>Physics of Plasmas</i> , 2019, 26, .	0.7	15
67	MeV ion confinement in the TFTR tokamak. <i>Physics of Fluids B</i> , 1990, 2, 1411-1414.	1.7	14
68	Comparing the line broadened quasilinear model to Vlasov code. <i>Physics of Plasmas</i> , 2014, 21, 032119.	0.7	14
69	Ion cyclotron emission studies: Retrospects and prospects. <i>Plasma Physics Reports</i> , 2016, 42, 430-439.	0.3	14
70	Resonances between high energy particles and ideal magnetohydrodynamic modes in tokamaks. <i>Physics of Plasmas</i> , 2018, 25, .	0.7	13
71	Confinement analysis in low- β confinement mode of hydrogen isotope experiments on the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1996, 3, 4521-4535.	0.7	12
72	Comparison of methods for numerical calculation of continuum damping. <i>Physics of Plasmas</i> , 2014, 21, 052508.	0.7	11

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73	Double-Gap Alfvén Eigenmodes: Revisiting Eigenmode Interaction with the Alfvén Continuum. Physical Review Letters, 2005, 95, 265003.	2.9	10
74	Compact and multi-view solid state neutral particle analyzer arrays on National Spherical Torus Experiment-Upgrade. Review of Scientific Instruments, 2016, 87, 11D803.	0.6	10
75	Collisional resonance function in discrete-resonance quasilinear plasma systems. Physics of Plasmas, 2019, 26, .	0.7	10
76	Experiments utilizing ion cyclotron range of frequencies heating on the TFTR tokamak. Physics of Fluids B, 1991, 3, 2270-2276.	1.7	9
77	Physics Basis for an Advanced Physics and Advanced Technology Tokamak Power Plant Configuration: ARIES-ACT1. Fusion Science and Technology, 2015, 67, 75-106.	0.6	8
78	Energetic-particle-modified global Alfvén eigenmodes. Physics of Plasmas, 2018, 25, .	0.7	8
79	Modeling of chirping toroidal Alfvén eigenmodes in NSTX. Physics of Plasmas, 2019, 26, 092103.	0.7	8
80	Collisional enhancement of energetic particle Alfvénic resonance width in tokamaks. Physics of Plasmas, 2019, 26, 032508.	0.7	8
81	Simulation of Alfvénic avalanche onset in NSTX. Physics of Plasmas, 2020, 27, 022117.	0.7	8
82	Three-wave interactions between fast-ion driven modes in the National Spherical Torus Experiment. Physics of Plasmas, 2009, 16, .	0.7	7
83	Phase space effects on fast ion distribution function modeling in tokamaks. Physics of Plasmas, 2016, 23, 056106.	0.7	7
84	Verification and application of resonance broadened quasi-linear (RBQ) model with multiple Alfvénic instabilities. Physics of Plasmas, 2019, 26, 072507.	0.7	7
85	Phase-space dynamics of Alfvén mode chirping. Physics of Plasmas, 2020, 27, 052108.	0.7	7
86	Compressional Alfvén eigenmodes in rotating spherical tokamak plasmas. Plasma Physics and Controlled Fusion, 2017, 59, 035007.	0.9	6
87	MHD-blob correlations in NSTX. Physics of Plasmas, 2020, 27, .	0.7	6
88	Properties of Alfvén eigenmodes in the Toroidal Alfvén Eigenmode range on the National Spherical Torus Experiment-Upgrade. Physics of Plasmas, 2013, 20, .	0.7	5
89	Anomalous fast ion losses at high \hat{I}^2 on the tokamak fusion test reactor. Physics of Plasmas, 2015, 22, 032501.	0.7	5
90	Analytic stability boundaries for compressional and global Alfvén eigenmodes driven by fast ions. II. Interaction via Landau resonance. Physics of Plasmas, 2020, 27, 022512.	0.7	5

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91	Parametric variations of ion transport in TFTR. AIP Conference Proceedings, 1994, , .	0.3	3
92	Low-frequency MHD diagnostics on TFTR. Review of Scientific Instruments, 1990, 61, 3025-3027.	0.6	2
93	Geodesic modes driven by untrapped resonances of NB energetic ions in tokamaks. Physics of Plasmas, 2019, 26, 102508.	0.7	2
94	Kinetic theory of plasma adiabatic major radius compression in tokamaks. Physics of Plasmas, 1998, 5, 1345-1353.	0.7	1
95	Tearing Mode Stability of Model Plasmas in NCSX. Fusion Science and Technology, 2007, 51, 232-237.	0.6	1
96	Comment on "Theory of Alfvén-slow frequency gaps and discovery of Alfvén-slow eigenmodes in tokamaks" [Phys. Plasmas 26, 082508 (2019)]. Physics of Plasmas, 2021, 28, 074701.	0.7	1
97	Impact of edge harmonic oscillations on the divertor heat flux in NSTX. Physics of Plasmas, 2022, 29, 012503.	0.7	1
98	Correlation between excitation of Alfvén modes and degradation of ICRF heating efficiency in TFTR. , 1997, , .		0
99	Stochastic RF Heating of Thermal Ions. AIP Conference Proceedings, 2007, , .	0.3	0
100	Use of Fast Ion D-Alpha diagnostics for understanding ICRF effects. , 2009, , .		0
101	Excitation of Alfvén modes by energetic particles in magnetic fusion. , 2012, , .		0
102	The Sawtooth Oscillation Effect on Fast-Ion Energy Spectra in ITER Plasma and Neutral Particle Analyzer Measurements. Doklady Physics, 2018, 63, 100-103.	0.2	0