

Richard Fitzpatrick

List of Publications by Year in descending order

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107
papers

4,639
citations

117625

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65
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111
all docs

111
docs citations

111
times ranked

1444
citing authors

#	ARTICLE	IF	CITATIONS
1	DIII-D research advancing the physics basis for optimizing the tokamak approach to fusion energy. Nuclear Fusion, 2022, 62, 042024.	3.5	11
2	Influence of anomalous perpendicular transport on linear tearing mode dynamics in tokamak plasmas. Physics of Plasmas, 2022, 29, .	1.9	6
3	Further modeling of $q=95$ windows for the suppression of edge localized modes by resonant magnetic perturbations in the DIII-D tokamak. Physics of Plasmas, 2021, 28, .	1.9	3
4	Resonant Axisymmetric Modes. Journal of Physics: Conference Series, 2021, 1785, 012004.	0.4	7
5	Modeling of $q=95$ windows for the suppression of edge localized modes by resonant magnetic perturbations in the KSTAR tokamak. Physics of Plasmas, 2021, 28, .	1.9	5
6	Impact of magnetic X-points on the vertical stability of tokamak plasmas. Nuclear Fusion, 2021, 61, 114003.	3.5	9
7	Modeling $q=95$ windows for the suppression of edge localized modes by resonant magnetic perturbations in the DIII-D tokamak. Physics of Plasmas, 2020, 27, .	1.9	6
8	Theory of edge localized mode suppression by static resonant magnetic perturbations in the DIII-D tokamak. Physics of Plasmas, 2020, 27, 042506.	1.9	24
9	An improved theory of the response of DIII-D H-mode discharges to static resonant magnetic perturbations and its implications for the suppression of edge localized modes. Physics of Plasmas, 2020, 27, 072501.	1.9	10
10	Vacuum solution for Solovév's equilibrium configuration in tokamaks. Nuclear Fusion, 2019, 59, 064002.	3.5	7
11	Shaping effects on toroidal magnetohydrodynamic modes in the presence of plasma and wall resistivity. Physics of Plasmas, 2018, 25, 012517.	1.9	2
12	A neoclassical drift-magnetohydrodynamical fluid model of the interaction of a magnetic island chain with a resonant error-field in a high temperature tokamak plasma. Physics of Plasmas, 2018, 25, 042503.	1.9	6
13	Two-fluid nonlinear theory of response of tokamak plasma to resonant magnetic perturbation. Physics of Plasmas, 2018, 25, .	1.9	12
14	Nonlinear neoclassical two-fluid theory of response of tokamak plasma to resonant error-field. Physics of Plasmas, 2018, 25, .	1.9	14
15	Effect of nonlinear energy transport on neoclassical tearing mode stability in tokamak plasmas. Physics of Plasmas, 2017, 24, 052504.	1.9	8
16	Determination of the non-ideal response of a high temperature tokamak plasma to a static external magnetic perturbation via asymptotic matching. Physics of Plasmas, 2017, 24, .	1.9	8
17	Interaction of a magnetic island chain in a tokamak plasma with a resonant magnetic perturbation of rapidly oscillating phase. Physics of Plasmas, 2017, 24, 122506.	1.9	1
18	Helical temperature perturbations associated with radially asymmetric magnetic island chains in tokamak plasmas. Physics of Plasmas, 2016, 23, 122502.	1.9	8

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19	Rotation profile flattening and toroidal flow shear reversal due to the coupling of magnetic islands in tokamaks. <i>Physics of Plasmas</i> , 2016, 23, 056107.	1.9	18
20	An improved neoclassical drift-magnetohydrodynamical fluid model of helical magnetic island equilibria in tokamak plasmas. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	11
21	Braking of tearing mode rotation by ferromagnetic conducting walls in tokamaks. <i>Physics of Plasmas</i> , 2015, 22, 092506.	1.9	1
22	Effect of rotation and velocity shear on tearing layer stability in tokamak plasmas. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	8
23	Phase locking of multi-helicity neoclassical tearing modes in tokamak plasmas. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	21
24	Linear and nonlinear response of a rotating tokamak plasma to a resonant error-field. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	23
25	Influence of ferromagnetic walls on resistive wall mode stability in tokamaks. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 105002.	2.1	2
26	Influence of wall thickness on the stability of the resistive wall mode in tokamak plasmas. <i>Physics of Plasmas</i> , 2013, 20, 012504.	1.9	4
27	Spontaneous healing and growth of locked magnetic island chains in toroidal plasmas. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	10
28	Role of singular layers in the plasma response to resonant magnetic perturbations. <i>Nuclear Fusion</i> , 2012, 52, 074004.	3.5	69
29	Magnetic island evolution in hot ion plasmas. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	16
30	Nonlinear error-field penetration in low density ohmically heated tokamak plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2012, 54, 094002.	2.1	49
31	Fundamentals of Magnetic Island Theory in Tokamaks. <i>Fusion Science and Technology</i> , 2011, 59, 625-625.	1.1	3
32	Theory of nonaxisymmetric vertical displacement events in tokamaks. <i>Nuclear Fusion</i> , 2011, 51, 053007.	3.5	10
33	A nonideal error-field response model for strongly shaped tokamak plasmas. <i>Physics of Plasmas</i> , 2010, 17, 112502.	1.9	5
34	Locked magnetic island chains in toroidally flow damped tokamak plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2010, 52, 055006.	2.1	10
35	A drift-magnetohydrodynamical fluid model of helical magnetic island equilibria in the pedestals of H-mode tokamak plasmas. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	13
36	Magnetic reconnection in weakly collisional highly magnetized electron-ion plasmas. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	18

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37	Error-field induced electromagnetic torques in a large aspect-ratio, low- $\hat{\nu}^2$, weakly shaped tokamak plasma. <i>Physics of Plasmas</i> , 2009, 16, 032502.	1.9	9
38	Effect of flow damping on drift-tearing magnetic islands in tokamak plasmas. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	20
39	Effect of electrostatic turbulence on magnetic islands. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 015015.	2.1	42
40	A simple ideal magnetohydrodynamical model of vertical disruption events in tokamaks. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	15
41	Effect of local $E\hat{\nu}$ -B flow shear on the stability of magnetic islands in tokamak plasmas. <i>Physics of Plasmas</i> , 2009, 16, 052502.	1.9	7
42	Drift-tearing magnetic islands in tokamak plasmas. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	27
43	Interaction between turbulence and a nonlinear tearing mode in the low $\hat{\nu}^2$ regime. <i>Physics of Plasmas</i> , 2008, 15, 050701.	1.9	43
44	A sharp boundary model for the vertical and kink stability of large aspect-ratio vertically elongated tokamak plasmas. <i>Physics of Plasmas</i> , 2008, 15, 092502.	1.9	6
45	Scaling of the peak magnetic reconnection rate in the inviscid Taylor problem. <i>Physics of Plasmas</i> , 2008, 15, 024503.	1.9	2
46	Interaction of scrape-off layer currents with magnetohydrodynamical instabilities in tokamak plasmas. <i>Physics of Plasmas</i> , 2007, 14, 062505.	1.9	19
47	Hypersonic drift-tearing magnetic islands in tokamak plasmas. <i>Physics of Plasmas</i> , 2007, 14, .	1.9	8
48	Effect of sheared flow on magnetic islands. <i>Physics of Plasmas</i> , 2007, 14, 022302.	1.9	12
49	Resistive wall mode stabilization by slow plasma rotation in DIII-D tokamak discharges with balanced neutral beam injection. <i>Physics of Plasmas</i> , 2007, 14, 056101.	1.9	56
50	Effect of an error field on the stability of the resistive wall mode. <i>Physics of Plasmas</i> , 2007, 14, 022505.	1.9	8
51	Drift-magnetohydrodynamical model of error-field penetration in tokamak plasmas. <i>Physics of Plasmas</i> , 2006, 13, 032503.	1.9	80
52	Stability of the resistive wall mode in HBT-EP plasmas. <i>Physics of Plasmas</i> , 2006, 13, 072512.	1.9	14
53	The influence of the ion polarization current on magnetic island stability in a tokamak plasma. <i>Physics of Plasmas</i> , 2006, 13, 122507.	1.9	56
54	Effect of drift-acoustic waves on magnetic island stability in slab geometry. <i>Physics of Plasmas</i> , 2005, 12, 122511.	1.9	15

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55	Two-fluid magnetic island dynamics in slab geometry. I. Isolated islands. Physics of Plasmas, 2005, 12, 022307.	1.9	34
56	Overview of results in the MST reversed field pinch experiment. Nuclear Fusion, 2005, 45, S276-S282.	3.5	14
57	Two-fluid magnetic island dynamics in slab geometry: Determination of the island phase velocity. Physics of Plasmas, 2005, 12, 082510.	1.9	21
58	Two-fluid magnetic island dynamics in slab geometry. II. Islands interacting with resistive walls or resonant magnetic perturbations. Physics of Plasmas, 2005, 12, 022308.	1.9	22
59	Forced magnetic reconnection in the inviscid Taylor problem. Physics of Plasmas, 2004, 11, 3525-3529.	1.9	13
60	Scaling of forced magnetic reconnection in the Hall-magnetohydrodynamical Taylor problem with arbitrary guide field. Physics of Plasmas, 2004, 11, 3961-3968.	1.9	27
61	Observation of tearing mode deceleration and locking due to eddy currents induced in a conducting shell. Physics of Plasmas, 2004, 11, 2156-2171.	1.9	37
62	Role of laser-pulse duration in the neutron yield of deuterium cluster targets. Physical Review A, 2004, 70, .	2.5	81
63	Collisionless magnetic reconnection with arbitrary guide field. Physics of Plasmas, 2004, 11, 4713-4718.	1.9	59
64	Scaling of forced magnetic reconnection in the Hall-magnetohydrodynamic Taylor problem. Physics of Plasmas, 2004, 11, 937-946.	1.9	79
65	The resistive wall mode and feedback control physics design in NSTX. Nuclear Fusion, 2004, 44, 560-570.	3.5	53
66	Dynamical plasma response of resistive wall modes to changing external magnetic perturbations. Physics of Plasmas, 2004, 11, 2573-2579.	1.9	49
67	A numerical study of forced magnetic reconnection in the viscous Taylor problem. Physics of Plasmas, 2003, 10, 2304-2312.	1.9	27
68	Wave driven magnetic reconnection in the Taylor problem. Physics of Plasmas, 2003, 10, 4284-4290.	1.9	8
69	Plasma parameter scaling of the error-field penetration threshold in tokamaks. Physics of Plasmas, 2003, 10, 1782-1787.	1.9	27
70	Phase-locking of tearing modes in the reversed field experiment. Physics of Plasmas, 2002, 9, 2707-2724.	1.9	36
71	Error field locked modes thresholds in rotating plasmas, anomalous braking and spin-up. Physics of Plasmas, 2002, 9, 3906-3918.	1.9	92
72	A simple model of the resistive wall mode in tokamaks. Physics of Plasmas, 2002, 9, 3459-3469.	1.9	65

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73	Control of tearing modes in toroidal fusion experiments using "designer" error fields. Physics of Plasmas, 2001, 8, 2760-2770.	1.9	13
74	Comment on "Improved boundary layer analysis of forced magnetic reconnection due to a boundary perturbation" [Phys. Plasmas 7, 875 (2000)]. Physics of Plasmas, 2001, 8, 374-375.	1.9	6
75	Improved evolution equations for magnetic island chains in toroidal pinch plasmas subject to externally applied resonant magnetic perturbations. Physics of Plasmas, 2001, 8, 4489-4500.	1.9	36
76	Conceptual design of an active feedback system for the control of the resistive shell mode in tokamaks. Physics of Plasmas, 2001, 8, 871-884.	1.9	13
77	Nonlinear dynamics of feedback modulated magnetic islands in toroidal plasmas. Physics of Plasmas, 2000, 7, 4983-4995.	1.9	20
78	Nonlinear dynamo mode dynamics in reversed field pinches. Physics of Plasmas, 2000, 7, 3610-3624.	1.9	23
79	Effect of a resistive vacuum vessel on dynamo mode rotation in reversed field pinches. Physics of Plasmas, 1999, 6, 3878-3889.	1.9	58
80	Formation and locking of the "slinky mode" in reversed-field pinches. Physics of Plasmas, 1999, 6, 1168-1193.	1.9	60
81	Feedback stabilization of resistive shell modes in a reversed field pinch. Physics of Plasmas, 1999, 6, 3536-3547.	1.9	54
82	Bifurcated states of a rotating tokamak plasma in the presence of a static error-field. Physics of Plasmas, 1998, 5, 3325-3341.	1.9	256
83	Optimal design of feedback coils for the control of external modes in tokamaks. Physics of Plasmas, 1998, 5, 2340-2354.	1.9	17
84	Resistive wall feedback stabilization. Physics of Plasmas, 1997, 4, 2997-3000.	1.9	38
85	Feedback stabilization of the resistive shell mode in a tokamak fusion reactor. Physics of Plasmas, 1997, 4, 2519-2531.	1.9	18
86	Angular momentum injection into a Penning "Malmberg trap. Physics of Plasmas, 1997, 4, 917-930.	1.9	5
87	The effect of a partial resistive shell on the magnetohydrodynamical stability of tokamak plasmas. Physics of Plasmas, 1997, 4, 4043-4068.	1.9	5
88	Rotation and Locking of Magnetic Islands. Physical Review Letters, 1997, 78, 1703-1706.	7.8	123
89	Stabilization of the resistive wall mode using a fake rotating shell. Physics of Plasmas, 1996, 3, 2641-2652.	1.9	77
90	Stabilization of the resistive shell mode in tokamaks. Nuclear Fusion, 1996, 36, 11-38.	3.5	123

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91	Helical temperature perturbations associated with tearing modes in tokamak plasmas. Physics of Plasmas, 1995, 2, 825-838.	1.9	503
92	Effect of a nonuniform resistive wall on the stability of tokamak plasmas. Physics of Plasmas, 1994, 1, 2931-2939.	1.9	23
93	Stability of coupled tearing and twisting modes in tokamaks. Physics of Plasmas, 1994, 1, 3308-3336.	1.9	56
94	Effect of a static external magnetic perturbation on resistive mode stability in tokamaks. Physics of Plasmas, 1994, 1, 3337-3355.	1.9	24
95	Interaction of tearing modes with external structures in cylindrical geometry (plasma). Nuclear Fusion, 1993, 33, 1049-1084.	3.5	446
96	Stability of coupled tearing modes in tokamaks. Nuclear Fusion, 1993, 33, 1533-1576.	3.5	100
97	On the '11/2-D' evolution of tokamak plasmas in the case of large aspect ratio. Plasma Physics and Controlled Fusion, 1992, 34, 161-174.	2.1	7
98	Driven magnetic reconnection in the COMPASS tokamak. Physics of Fluids B, 1992, 4, 413-416.	1.7	43
99	Critical error fields for locked mode instability in tokamaks. Physics of Fluids B, 1992, 4, 2098-2103.	1.7	155
100	Effect of resonant magnetic perturbations on COMPASS-C tokamak discharges. Nuclear Fusion, 1992, 32, 2091-2117.	3.5	295
101	The interaction of resonant magnetic perturbations with rotating plasmas. Physics of Fluids B, 1991, 3, 644-673.	1.7	242
102	The effect of trapped particles on the linear stability of long wavelength resistive modes. Physics of Fluids B, 1990, 2, 2636-2642.	1.7	11
103	Fusion Theory (Report on the 3rd European Conference, Oxford, United Kingdom, 11-13 September) Tj ETQq1 1,0,784314,rgBT /O	3.5	0
104	Alpha particle induced magnetoacoustic instability in a thermonuclear plasma. Plasma Physics and Controlled Fusion, 1989, 31, 431-434.	2.1	0
105	On the stability of equilibria with unorthodox q(r) profiles to the resistive internal kink mode. Plasma Physics and Controlled Fusion, 1989, 31, 1127-1140.	2.1	2
106	Linear stability of low mode number tearing modes in the banana collisionality regime. Physics of Fluids B, 1989, 1, 2381-2396.	1.7	9
107	Plasma Physics. , 0, , .		66