

# Richard Fitzpatrick

## List of Publications by Year in descending order

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107  
papers

4,639  
citations

117625

34  
h-index

106344

65  
g-index

111  
all docs

111  
docs citations

111  
times ranked

1444  
citing authors

#	ARTICLE	IF	CITATIONS
1	Helical temperature perturbations associated with tearing modes in tokamak plasmas. Physics of Plasmas, 1995, 2, 825-838.	1.9	503
2	Interaction of tearing modes with external structures in cylindrical geometry (plasma). Nuclear Fusion, 1993, 33, 1049-1084.	3.5	446
3	Effect of resonant magnetic perturbations on COMPASS-C tokamak discharges. Nuclear Fusion, 1992, 32, 2091-2117.	3.5	295
4	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
5	The interaction of resonant magnetic perturbations with rotating plasmas. Physics of Fluids B, 1991, 3, 644-673.	1.7	242
6	Critical error fields for locked mode instability in tokamaks. Physics of Fluids B, 1992, 4, 2098-2103.	1.7	155
7	Stabilization of the resistive shell mode in tokamaks. Nuclear Fusion, 1996, 36, 11-38.	3.5	123
8	Rotation and Locking of Magnetic Islands. Physical Review Letters, 1997, 78, 1703-1706.	7.8	123
9	Stability of coupled tearing modes in tokamaks. Nuclear Fusion, 1993, 33, 1533-1576.	3.5	100
10	Error field locked modes thresholds in rotating plasmas, anomalous braking and spin-up. Physics of Plasmas, 2002, 9, 3906-3918.	1.9	92
11	Role of laser-pulse duration in the neutron yield of deuterium cluster targets. Physical Review A, 2004, 70, .	2.5	81
12	Drift-magnetohydrodynamical model of error-field penetration in tokamak plasmas. Physics of Plasmas, 2006, 13, 032503.	1.9	80
13	Scaling of forced magnetic reconnection in the Hall-magnetohydrodynamic Taylor problem. Physics of Plasmas, 2004, 11, 937-946.	1.9	79
14	Stabilization of the resistive wall mode using a fake rotating shell. Physics of Plasmas, 1996, 3, 2641-2652.	1.9	77
15	Role of singular layers in the plasma response to resonant magnetic perturbations. Nuclear Fusion, 2012, 52, 074004.	3.5	69
16	Plasma Physics. , 0, , .		66
17	A simple model of the resistive wall mode in tokamaks. Physics of Plasmas, 2002, 9, 3459-3469.	1.9	65
18	Formation and locking of the "resistive wall mode" in reversed-field pinches. Physics of Plasmas, 1999, 6, 1168-1193.	1.9	60

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19	Collisionless magnetic reconnection with arbitrary guide field. <i>Physics of Plasmas</i> , 2004, 11, 4713-4718.	1.9	59
20	Effect of a resistive vacuum vessel on dynamo mode rotation in reversed field pinches. <i>Physics of Plasmas</i> , 1999, 6, 3878-3889.	1.9	58
21	Stability of coupled tearing and twisting modes in tokamaks. <i>Physics of Plasmas</i> , 1994, 1, 3308-3336.	1.9	56
22	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
23	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
24	Feedback stabilization of resistive shell modes in a reversed field pinch. <i>Physics of Plasmas</i> , 1999, 6, 3536-3547.	1.9	54
25	The resistive wall mode and feedback control physics design in NSTX. <i>Nuclear Fusion</i> , 2004, 44, 560-570.	3.5	53
26	Dynamical plasma response of resistive wall modes to changing external magnetic perturbations. <i>Physics of Plasmas</i> , 2004, 11, 2573-2579.	1.9	49
27	Nonlinear error-field penetration in low density ohmically heated tokamak plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2012, 54, 094002.	2.1	49
28	Driven magnetic reconnection in the COMPASS tokamak. <i>Physics of Fluids B</i> , 1992, 4, 413-416.	1.7	43
29	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
30	Effect of electrostatic turbulence on magnetic islands. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 015015.	2.1	42
31	Resistive wall feedback stabilization. <i>Physics of Plasmas</i> , 1997, 4, 2997-3000.	1.9	38
32	Observation of tearing mode deceleration and locking due to eddy currents induced in a conducting shell. <i>Physics of Plasmas</i> , 2004, 11, 2156-2171.	1.9	37
33	Improved evolution equations for magnetic island chains in toroidal pinch plasmas subject to externally applied resonant magnetic perturbations. <i>Physics of Plasmas</i> , 2001, 8, 4489-4500.	1.9	36
34	Phase-locking of tearing modes in the reversed field experiment. <i>Physics of Plasmas</i> , 2002, 9, 2707-2724.	1.9	36
35	Two-fluid magnetic island dynamics in slab geometry. I. Isolated islands. <i>Physics of Plasmas</i> , 2005, 12, 022307.	1.9	34
36	A numerical study of forced magnetic reconnection in the viscous Taylor problem. <i>Physics of Plasmas</i> , 2003, 10, 2304-2312.	1.9	27

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37	Plasma parameter scaling of the error-field penetration threshold in tokamaks. <i>Physics of Plasmas</i> , 2003, 10, 1782-1787.	1.9	27
38	Scaling of forced magnetic reconnection in the Hall-magnetohydrodynamical Taylor problem with arbitrary guide field. <i>Physics of Plasmas</i> , 2004, 11, 3961-3968.	1.9	27
39	Drift-tearing magnetic islands in tokamak plasmas. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	27
40	Effect of a static external magnetic perturbation on resistive mode stability in tokamaks. <i>Physics of Plasmas</i> , 1994, 1, 3337-3355.	1.9	24
41	Theory of edge localized mode suppression by static resonant magnetic perturbations in the DIII-D tokamak. <i>Physics of Plasmas</i> , 2020, 27, 042506.	1.9	24
42	Effect of a nonuniform resistive wall on the stability of tokamak plasmas. <i>Physics of Plasmas</i> , 1994, 1, 2931-2939.	1.9	23
43	Nonlinear dynamo mode dynamics in reversed field pinches. <i>Physics of Plasmas</i> , 2000, 7, 3610-3624.	1.9	23
44	Linear and nonlinear response of a rotating tokamak plasma to a resonant error-field. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	23
45	Two-fluid magnetic island dynamics in slab geometry. II. Islands interacting with resistive walls or resonant magnetic perturbations. <i>Physics of Plasmas</i> , 2005, 12, 022308.	1.9	22
46	Two-fluid magnetic island dynamics in slab geometry: Determination of the island phase velocity. <i>Physics of Plasmas</i> , 2005, 12, 082510.	1.9	21
47	Phase locking of multi-helicity neoclassical tearing modes in tokamak plasmas. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	21
48	Nonlinear dynamics of feedback modulated magnetic islands in toroidal plasmas. <i>Physics of Plasmas</i> , 2000, 7, 4983-4995.	1.9	20
49	Effect of flow damping on drift-tearing magnetic islands in tokamak plasmas. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	20
50	Interaction of scrape-off layer currents with magnetohydrodynamical instabilities in tokamak plasmas. <i>Physics of Plasmas</i> , 2007, 14, 062505.	1.9	19
51	Feedback stabilization of the resistive shell mode in a tokamak fusion reactor. <i>Physics of Plasmas</i> , 1997, 4, 2519-2531.	1.9	18
52	Magnetic reconnection in weakly collisional highly magnetized electron-ion plasmas. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	18
53	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
54	Optimal design of feedback coils for the control of external modes in tokamaks. <i>Physics of Plasmas</i> , 1998, 5, 2340-2354.	1.9	17

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55	Magnetic island evolution in hot ion plasmas. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	16
56	Effect of drift-acoustic waves on magnetic island stability in slab geometry. <i>Physics of Plasmas</i> , 2005, 12, 122511.	1.9	15
57	A simple ideal magnetohydrodynamical model of vertical disruption events in tokamaks. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	15
58	Overview of results in the MST reversed field pinch experiment. <i>Nuclear Fusion</i> , 2005, 45, S276-S282.	3.5	14
59	Stability of the resistive wall mode in HBT-EP plasmas. <i>Physics of Plasmas</i> , 2006, 13, 072512.	1.9	14
60	Nonlinear neoclassical two-fluid theory of response of tokamak plasma to resonant error-field. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	14
61	Control of tearing modes in toroidal fusion experiments using "designer" error fields. <i>Physics of Plasmas</i> , 2001, 8, 2760-2770.	1.9	13
62	Conceptual design of an active feedback system for the control of the resistive shell mode in tokamaks. <i>Physics of Plasmas</i> , 2001, 8, 871-884.	1.9	13
63	Forced magnetic reconnection in the inviscid Taylor problem. <i>Physics of Plasmas</i> , 2004, 11, 3525-3529.	1.9	13
64	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
65	Effect of sheared flow on magnetic islands. <i>Physics of Plasmas</i> , 2007, 14, 022302.	1.9	12
66	Two-fluid nonlinear theory of response of tokamak plasma to resonant magnetic perturbation. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	12
67	The effect of trapped particles on the linear stability of long wavelength resistive modes. <i>Physics of Fluids B</i> , 1990, 2, 2636-2642.	1.7	11
68	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
69	DIII-D research advancing the physics basis for optimizing the tokamak approach to fusion energy. <i>Nuclear Fusion</i> , 2022, 62, 042024.	3.5	11
70	Locked magnetic island chains in toroidally flow damped tokamak plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2010, 52, 055006.	2.1	10
71	Theory of nonaxisymmetric vertical displacement events in tokamaks. <i>Nuclear Fusion</i> , 2011, 51, 053007.	3.5	10
72	Spontaneous healing and growth of locked magnetic island chains in toroidal plasmas. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	10

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73	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. <i>Physics of Plasmas</i> , 2020, 27, 072501.	1.9	10
74	Linear stability of low mode number tearing modes in the banana collisionality regime. <i>Physics of Fluids B</i> , 1989, 1, 2381-2396.	1.7	9
75	Error-field induced electromagnetic torques in a large aspect-ratio, low- $\hat{\rho}^2$ , weakly shaped tokamak plasma. <i>Physics of Plasmas</i> , 2009, 16, 032502.	1.9	9
76	Impact of magnetic X-points on the vertical stability of tokamak plasmas. <i>Nuclear Fusion</i> , 2021, 61, 114003.	3.5	9
77	Wave driven magnetic reconnection in the Taylor problem. <i>Physics of Plasmas</i> , 2003, 10, 4284-4290.	1.9	8
78	Hypersonic drift-tearing magnetic islands in tokamak plasmas. <i>Physics of Plasmas</i> , 2007, 14, .	1.9	8
79	Effect of an error field on the stability of the resistive wall mode. <i>Physics of Plasmas</i> , 2007, 14, 022505.	1.9	8
80	Effect of rotation and velocity shear on tearing layer stability in tokamak plasmas. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	8
81	Helical temperature perturbations associated with radially asymmetric magnetic island chains in tokamak plasmas. <i>Physics of Plasmas</i> , 2016, 23, 122502.	1.9	8
82	Effect of nonlinear energy transport on neoclassical tearing mode stability in tokamak plasmas. <i>Physics of Plasmas</i> , 2017, 24, 052504.	1.9	8
83	Determination of the non-ideal response of a high temperature tokamak plasma to a static external magnetic perturbation via asymptotic matching. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	8
84	On the '11/2-D' evolution of tokamak plasmas in the case of large aspect ratio. <i>Plasma Physics and Controlled Fusion</i> , 1992, 34, 161-174.	2.1	7
85	Effect of local $E \times B$ flow shear on the stability of magnetic islands in tokamak plasmas. <i>Physics of Plasmas</i> , 2009, 16, 052502.	1.9	7
86	Vacuum solution for Solovév's equilibrium configuration in tokamaks. <i>Nuclear Fusion</i> , 2019, 59, 064002.	3.5	7
87	Resonant Axisymmetric Modes. <i>Journal of Physics: Conference Series</i> , 2021, 1785, 012004.	0.4	7
88	Comment on "Improved boundary layer analysis of forced magnetic reconnection due to a boundary perturbation" [Phys. Plasmas 7, 875 (2000)]. <i>Physics of Plasmas</i> , 2001, 8, 374-375.	1.9	6
89	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
90	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. <i>Physics of Plasmas</i> , 2018, 25, 042503.	1.9	6

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91	Modeling of $q=95$ windows for the suppression of edge localized modes by resonant magnetic perturbations in the DIII-D tokamak. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	6
92	Influence of anomalous perpendicular transport on linear tearing mode dynamics in tokamak plasmas. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	6
93	Angular momentum injection into a Penning-Malmberg trap. <i>Physics of Plasmas</i> , 1997, 4, 917-930.	1.9	5
94	The effect of a partial resistive shell on the magnetohydrodynamical stability of tokamak plasmas. <i>Physics of Plasmas</i> , 1997, 4, 4043-4068.	1.9	5
95	A nonideal error-field response model for strongly shaped tokamak plasmas. <i>Physics of Plasmas</i> , 2010, 17, 112502.	1.9	5
96	Modeling of $q=95$ windows for the suppression of edge localized modes by resonant magnetic perturbations in the KSTAR tokamak. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	5
97	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
98	Fundamentals of Magnetic Island Theory in Tokamaks. <i>Fusion Science and Technology</i> , 2011, 59, 625-625.	1.1	3
99	Further modeling of $q=95$ windows for the suppression of edge localized modes by resonant magnetic perturbations in the DIII-D tokamak. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	3
100	On the stability of equilibria with unorthodox $q(r)$ profiles to the resistive internal kink mode. <i>Plasma Physics and Controlled Fusion</i> , 1989, 31, 1127-1140.	2.1	2
101	Scaling of the peak magnetic reconnection rate in the inviscid Taylor problem. <i>Physics of Plasmas</i> , 2008, 15, 024503.	1.9	2
102	Influence of ferromagnetic walls on resistive wall mode stability in tokamaks. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 105002.	2.1	2
103	Shaping effects on toroidal magnetohydrodynamic modes in the presence of plasma and wall resistivity. <i>Physics of Plasmas</i> , 2018, 25, 012517.	1.9	2
104	Braking of tearing mode rotation by ferromagnetic conducting walls in tokamaks. <i>Physics of Plasmas</i> , 2015, 22, 092506.	1.9	1
105	Interaction of a magnetic island chain in a tokamak plasma with a resonant magnetic perturbation of rapidly oscillating phase. <i>Physics of Plasmas</i> , 2017, 24, 122506.	1.9	1
106	Alpha particle induced magnetoacoustic instability in a thermonuclear plasma. <i>Plasma Physics and Controlled Fusion</i> , 1989, 31, 431-434.	2.1	0
107	Fusion Theory (Report on the 3rd European Conference, Oxford, United Kingdom, 11-13 September) Tj ETQq1 1.0,784314,rgBT /Ove	3.5	0