N M Ferraro

List of Publications by Year
in descending order

73 papers	1,884 citations	236925 25 h-index	276875 41 g-index
74 all docs	74 docs citations	74 times ranked	1216 citing authors

#	Article	IF	Citations
1	NSTX-U theory, modeling and analysis results. Nuclear Fusion, 2022, 62, 042023.	3.5	8
2	Critical role of current-driven instabilities for ELMs in NSTX. Nuclear Fusion, 2022, 62, 076018.	3.5	1
3	Ideal MHD Limited Electron Temperature in Spherical Tokamaks. Physical Review Letters, 2022, 128, .	7.8	7
4	Observations of heteroclinic bifurcations in resistive magnetohydrodynamic simulations of the plasma response to resonant magnetic perturbations. Physical Review E, 2021, 103, 013209.	2.1	4
5	Computation of linear MHD instabilities with the multi-region relaxed MHD energy principle. Plasma Physics and Controlled Fusion, 2021, 63, 045006.	2.1	10
6	Approach to nonlinear magnetohydrodynamic simulations in stellarator geometry. Nuclear Fusion, 2021, 61, 086015.	3.5	6
7	Mode spectrum characteristics and onset of the low-shear MHD stability regime. Physics of Plasmas, 2021, 28, .	1.9	1
8	Modeling of carbon pellets disruption mitigation in an NSTX-U plasma. Nuclear Fusion, 2021, 61, 116003.	3.5	3
9	Self-consistent simulation of resistive kink instabilities with runaway electrons. Plasma Physics and Controlled Fusion, 2021, 63, 125031.	2.1	5
10	Predicting nonresonant pressure-driven MHD modes in equilibria with low magnetic shear. Physics of Plasmas, 2021, 28, 012106.	1.9	1
11	Simulation of MHD instabilities with fluid runaway electron model in M3D-C ¹. Nuclear Fusion, 2021, 60, 126017.	3.5	15
12	Simulation of pellet ELM triggering in low-collisionality, ITER-like discharges. Nuclear Fusion, 2021, 61, 126059.	3.5	1
13	Structure and overstability of resistive modes with runaway electrons. Physics of Plasmas, 2020, 27, .	1.9	9
14	Enhanced pedestal H-mode at low edge ion collisionality on NSTX. Physics of Plasmas, 2020, 27, 072511.	1.9	8
15	Gyrokinetic understanding of the edge pedestal transport driven by resonant magnetic perturbations in a realistic divertor geometry. Physics of Plasmas, 2020, 27, .	1.9	15
16	Axisymmetric simulations of vertical displacement events in tokamaks: A benchmark of M3D-C1, NIMROD, and JOREK. Physics of Plasmas, 2020, 27, 022505.	1.9	18
17	A new explanation of the sawtooth phenomena in tokamaks. Physics of Plasmas, 2020, 27, .	1.9	26
18	Error field impact on mode locking and divertor heat flux in NSTX-U. Nuclear Fusion, 2019, 59, 086021.	3.5	4

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19	A new stabilizing regime of tearing mode entrainment in the presence of a static error field. Nuclear Fusion, 2019, 59, 126015.	3.5	4
20	Vertical forces during vertical displacement events in an ITER plasma and the role of halo currents. Nuclear Fusion, 2019, 59, 126037.	3.5	25
21	NSTX/NSTX-U theory, modeling and analysis results. Nuclear Fusion, 2019, 59, 112007.	3.5	20
22	Axisymmetric benchmarks of impurity dynamics in extended-magnetohydrodynamic simulations. Plasma Physics and Controlled Fusion, 2019, 61, 064001.	2.1	22
23	Modelling of NSTX hot vertical displacement events using M3D-C1. Physics of Plasmas, 2018, 25, 056106.	1.9	12
24	Helical variation of density profiles and fluctuations in the tokamak pedestal with applied 3D fields and implications for confinement. Physics of Plasmas, 2018, 25, .	1.9	6
25	Grassy-ELM regime with edge resonant magnetic perturbations in fully noninductive plasmas in the DIII-D tokamak. Nuclear Fusion, 2018, 58, 106010.	3.5	35
26	Predict-first experimental analysis using automated and integrated magnetohydrodynamic modeling. Physics of Plasmas, 2018, 25, .	1.9	13
27	Nonlinear simulations of thermo-resistive tearing mode formalism of the density limit. Nuclear Fusion, 2018, 58, 106024.	3.5	7
28	Local properties of magnetic reconnection in nonlinear resistive- and extended-magnetohydrodynamic toroidal simulations of the sawtooth crash. Plasma Physics and Controlled Fusion, 2017, 59, 025007.	2.1	9
29	Modeling of lithium granule injection in NSTX using M3D-C1. Nuclear Fusion, 2017, 57, 056040.	3.5	1
30	Overview of NSTX Upgrade initial results and modelling highlights. Nuclear Fusion, 2017, 57, 102006.	3.5	45
31	Effect of rotation zero-crossing on single-fluid plasma response to three-dimensional magnetic perturbations. Plasma Physics and Controlled Fusion, 2017, 59, 044001.	2.1	16
32	Modeling of lithium granule injection in NSTX with M3D-C1. Nuclear Materials and Energy, 2017, 12, 1094-1099.	1.3	3
33	Impact of ideal MHD stability limits on high-beta hybrid operation. Plasma Physics and Controlled Fusion, 2017, 59, 014027.	2.1	31
34	Magnetic flux pumping in 3D nonlinear magnetohydrodynamic simulations. Physics of Plasmas, 2017, 24, .	1.9	29
35	Validation of the model for ELM suppression with 3D magnetic fields using low torque ITER baseline scenario discharges in DIII-D. Physics of Plasmas, 2017, 24, .	1.9	43
36	Impact of resistive MHD plasma response on perturbation field sidebands. Plasma Physics and Controlled Fusion, 2016, 58, 075009.	2.1	2

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37	Multi-region approach to free-boundary three-dimensional tokamak equilibria and resistive wall instabilities. Physics of Plasmas, 2016, 23, .	1.9	29
38	Evidence of Toroidally Localized Turbulence with Applied 3D Fields in the DIII-D Tokamak. Physical Review Letters, 2016, 117, 135001.	7.8	21
39	Mitigation of AlfvÃ©nic activity by 3D magnetic perturbations on NSTX. Plasma Physics and Controlled Fusion, 2016, 58, 085003.	2.1	23
40	The external kink mode in diverted tokamaks. Journal of Plasma Physics, 2016, 82, .	2.1	9
41	Nonlinear asymmetric tearing mode evolution in cylindrical geometry. Physics of Plasmas, 2016, 23, .	1.9	4
42	Self-Organized Stationary States of Tokamaks. Physical Review Letters, 2015, 115, 215001.	7.8	60
43	Three-dimensional equilibria and island energy transport due to resonant magnetic perturbation edge localized mode suppression on DIII-D. Physics of Plasmas, 2015, 22, .	1.9	9
44	Experimental tests of linear and nonlinear three-dimensional equilibrium models in DIII-D. Physics of Plasmas, 2015, 22, .	1.9	40
45	Microwave Imaging Reflectometry for the study of Edge Harmonic Oscillations on DIII-D. Journal of Instrumentation, 2015, 10, P10036-P10036.	1.2	10
46	Pedestal Bifurcation and Resonant Field Penetration at the Threshold of Edge-Localized Mode Suppression in the DIII-D Tokamak. Physical Review Letters, 2015, 114, 105002.	7.8	141
47	Observation of a Multimode Plasma Response and its Relationship to Density Pumpout and Edge-Localized Mode Suppression. Physical Review Letters, 2015, 114, 105001.	7.8	124
48	Theory and simulation of quasilinear transport from external magnetic field perturbations in a DIII-D plasma. Physics of Plasmas, 2015, 22, .	1.9	8
49	Modelling of edge localised modes and edge localised mode control. Physics of Plasmas, 2015, 22, .	1.9	34
50	An overview of recent physics results from NSTX. Nuclear Fusion, 2015, 55, 104002.	3.5	21
51	Connection between plasma response and resonant magnetic perturbation (RMP) edge localized mode (ELM) suppression in DIII-D. Plasma Physics and Controlled Fusion, 2015, 57, 104006.	2.1	23
52	Plasma response measurements of non-axisymmetric magnetic perturbations on DIII-D via soft x-ray	1.9	8
53	Tokamak Operation with Safety Factor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>q</mml:mi></mml:mrow><mml:mrow><mml:mn>95</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> via Control of MHD Stability. Physical Review Letters, 2014, 113, 045003.	7.8	18
54	Three-dimensional distortions of the tokamak plasma boundary: boundary displacements in the presence of resonant magnetic perturbations. Nuclear Fusion, 2014, 54, 083006.	3.5	27

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55	Modulation of prompt fast-ion loss by appliedn= 2 fields in the DIII-D tokamak. Plasma Physics and Controlled Fusion, 2014, 56, 015009.	2.1	36
56	Comparisons of linear and nonlinear plasma response models for non-axisymmetric perturbations. Physics of Plasmas, 2013, 20, .	1.9	73
57	Fast-ion losses induced by ELMs and externally applied magnetic perturbations in the ASDEX Upgrade tokamak. Plasma Physics and Controlled Fusion, 2013, 55, 124014.	2.1	65
58	The limits and challenges of error field correction for ITER. Physics of Plasmas, 2012, 19, .	1.9	43
59	Symmetries of resistive two-fluid magnetohydrodynamics under reversals of toroidal field, current, and rotation. Physics of Plasmas, 2012, 19, 014505.	1.9	2
60	Measurement of plasma boundary displacement by$n$= 2 magnetic perturbations using imaging beam emission spectroscopy. Nuclear Fusion, 2012, 52, 123019.	3.5	47
61	Multiple timescale calculations of sawteeth and other global macroscopic dynamics of tokamak plasmas. Computational Science & Discovery, 2012, 5, 014002.	1.5	61
62	Calculations of two-fluid linear response to non-axisymmetric fields in tokamaks. Physics of Plasmas, 2012, 19, .	1.9	142
63	Ideal and resistive edge stability calculations with M3D-C1. Physics of Plasmas, 2010, 17, 102508.	1.9	58
64	Some properties of the M3D-C1 form of the three-dimensional magnetohydrodynamics equations. Physics of Plasmas, 2009, 16, .	1.9	39
65	Calculations of two-fluid magnetohydrodynamic axisymmetric steady-states. Journal of Computational Physics, 2009, 228, 7742-7770.	3.8	56
66	The M3D-C¹approach to simulating 3D 2-fluid magnetohydrodynamics in magnetic fusion experiments. Journal of Physics: Conference Series, 2008, 125, 012044.	0.4	27
67	Finite Larmor Radius Effects on the Magnetorotational Instability. Astrophysical Journal, 2007, 662, 512-516.	4.5	29
68	Formation of Collisionless High-Î²Plasmas by Odd-Parity Rotating Magnetic Fields. Physical Review Letters, 2007, 98, 145002.	7.8	51
69	The Princeton FRC Rotating-Magnetic-Field-Experiment RF System. , 2007, , .		3
70	A high-order implicit finite element method for integrating the two-fluid magnetohydrodynamic equations in two dimensions. Journal of Computational Physics, 2007, 226, 2146-2174.	3.8	53
71	Finite element implementation of Braginskiiâ€™s gyroviscous stress with application to the gravitational instability. Physics of Plasmas, 2006, 13, 092101.	1.9	18
72	Turbulence in low-Î² reconnection. Physics of Plasmas, 2004, 11, 4382-4389.	1.9	7

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73	NSTX-U theory, modeling and analysis results. Nuclear Fusion, 0, , .	3.5	0