

Felix I Parra

List of Publications by Year in descending order

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108
papers

2,264
citations

236925

25
h-index

276875

41
g-index

111
all docs

111
docs citations

111
times ranked

1327
citing authors

#	ARTICLE	IF	CITATIONS
1	A two-dimensional hybrid model of the Hall thruster discharge. <i>Journal of Applied Physics</i> , 2006, 100, 023304.	2.5	143
2	Overview of toroidal momentum transport. <i>Nuclear Fusion</i> , 2011, 51, 094027.	3.5	110
3	Limitations of gyrokinetics on transport time scales. <i>Plasma Physics and Controlled Fusion</i> , 2008, 50, 065014.	2.1	92
4	Critically Balanced Ion Temperature Gradient Turbulence in Fusion Plasmas. <i>Physical Review Letters</i> , 2011, 107, 115003.	7.8	84
5	Sensitivity of detachment extent to magnetic configuration and external parameters. <i>Nuclear Fusion</i> , 2016, 56, 056007.	3.5	71
6	Up-down symmetry of the turbulent transport of toroidal angular momentum in tokamaks. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	70
7	Turbulent Transport in Tokamak Plasmas with Rotational Shear. <i>Physical Review Letters</i> , 2011, 106, 175004.	7.8	69
8	Transport Bifurcation in a Rotating Tokamak Plasma. <i>Physical Review Letters</i> , 2010, 105, 215003.	7.8	55
9	Phase-space Lagrangian derivation of electrostatic gyrokinetics in general geometry. <i>Plasma Physics and Controlled Fusion</i> , 2011, 53, 045001.	2.1	52
10	Intrinsic Rotation Driven by Non-Maxwellian Equilibria in Tokamak Plasmas. <i>Physical Review Letters</i> , 2013, 111, 055005.	7.8	50
11	Multi-channel transport experiments at Alcator C-Mod and comparison with gyrokinetic simulations. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	48
12	Turbulent transport of toroidal angular momentum in low flow gyrokinetics. <i>Plasma Physics and Controlled Fusion</i> , 2010, 52, 045004.	2.1	47
13	Partial trapping of secondary-electron emission in a Hall thruster plasma. <i>Physics of Plasmas</i> , 2005, 12, 073503.	1.9	43
14	Toroidal and slab ETG instability dominance in the linear spectrum of JET-ILW pedestals. <i>Nuclear Fusion</i> , 2020, 60, 126045.	3.5	40
15	Transport of momentum in full f gyrokinetics. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	39
16	Changes in core electron temperature fluctuations across the ohmic energy confinement transition in Alcator C-Mod plasmas. <i>Nuclear Fusion</i> , 2013, 53, 083010.	3.5	37
17	The effect of tangential drifts on neoclassical transport in stellarators close to omnigenity. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 055014.	2.1	35
18	Collisionality scaling of the electron heat flux in ETG turbulence. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 055002.	2.1	33

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19	Vorticity and intrinsic ambipolarity in turbulent tokamaks. Plasma Physics and Controlled Fusion, 2009, 51, 095008.	2.1	30
20	Overview of new MAST physics in anticipation of first results from MAST Upgrade. Nuclear Fusion, 2019, 59, 112011.	3.5	30
21	Scaling of Spontaneous Rotation with Temperature and Plasma Current in Tokamaks. Physical Review Letters, 2012, 108, 095001.	7.8	29
22	Experimental Signatures of Critically Balanced Turbulence in MAST. Physical Review Letters, 2013, 110, 145002.	7.8	29
23	Zero-Turbulence Manifold in a Toroidal Plasma. Physical Review Letters, 2012, 109, 265001.	7.8	28
24	Inboard and outboard radial electric field wells in the H- and I-mode pedestal of Alcator C-Mod and poloidal variations of impurity temperature. Nuclear Fusion, 2014, 54, 083017.	3.5	28
25	Sources of intrinsic rotation in the low-flow ordering. Nuclear Fusion, 2011, 51, 113001.	3.5	26
26	Stellarators close to quasisymmetry. Plasma Physics and Controlled Fusion, 2013, 55, 125014.	2.1	25
27	Zonally dominated dynamics and Dimits threshold in curvature-driven ITG turbulence. Journal of Plasma Physics, 2020, 86, .	2.1	25
28	Momentum Injection in Tokamak Plasmas and Transitions to Reduced Transport. Physical Review Letters, 2011, 106, 115004.	7.8	24
29	Intrinsic rotation in tokamaks: theory. Plasma Physics and Controlled Fusion, 2015, 57, 045002.	2.1	23
30	Residual zonal flows in tokamaks and stellarators at arbitrary wavelengths. Plasma Physics and Controlled Fusion, 2016, 58, 045018.	2.1	23
31	Stellarator impurity flux driven by electric fields tangent to magnetic surfaces. Nuclear Fusion, 2018, 58, 124005.	3.5	23
32	Fulfillment of the kinetic Bohm criterion in a quasineutral particle-in-cell model. Physics of Plasmas, 2010, 17, 073507.	1.9	22
33	Long-wavelength limit of gyrokinetics in a turbulent tokamak and its intrinsic ambipolarity. Plasma Physics and Controlled Fusion, 2012, 54, 115007.	2.1	22
34	Intrinsic momentum transport in upâ€“down asymmetric tokamaks. Plasma Physics and Controlled Fusion, 2014, 56, 095014.	2.1	22
35	Moderation of neoclassical impurity accumulation in high temperature plasmas of helical devices. Nuclear Fusion, 2017, 57, 016016.	3.5	22
36	stella: An operator-split, implicitâ€“explicit Î“f-gyrokinetic code for general magnetic field configurations. Journal of Computational Physics, 2019, 391, 365-380.	3.8	22

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37	Overview of physics results from MAST towards ITER/DEMO and the MAST Upgrade. Nuclear Fusion, 2013, 53, 104008.	3.5	21
38	Dependence of intrinsic rotation reversals on collisionality in MAST. Nuclear Fusion, 2015, 55, 032003.	3.5	21
39	Ion-scale turbulence in MAST: anomalous transport, subcritical transitions, and comparison to BES measurements. Plasma Physics and Controlled Fusion, 2017, 59, 114003.	2.1	21
40	KNOSOS: A fast orbit-averaging neoclassical code for stellarator geometry. Journal of Computational Physics, 2020, 418, 109512.	3.8	21
41	Observation of Oscillatory Radial Electric Field Relaxation in a Helical Plasma. Physical Review Letters, 2017, 118, 185002.	7.8	20
42	Large tangential electric fields in plasmas close to temperature screening. Plasma Physics and Controlled Fusion, 2018, 60, 074004.	2.1	20
43	Less constrained omnigeneous stellarators. Nuclear Fusion, 2015, 55, 033005.	3.5	18
44	On the effect of neoclassical flows on intrinsic momentum in ASDEX Upgrade Ohmic L-mode plasmas. Nuclear Fusion, 2017, 57, 046008.	3.5	18
45	Transport bifurcation induced by sheared toroidal flow in tokamak plasmas. Physics of Plasmas, 2011, 18, .	1.9	17
46	Gyrokinetic treatment of a grazing angle magnetic presheath. Plasma Physics and Controlled Fusion, 2017, 59, 025015.	2.1	17
47	Electrostatic potential variations on stellarator magnetic surfaces in low collisionality regimes. Journal of Plasma Physics, 2018, 84, .	2.1	17
48	The effect of diamagnetic flows on turbulent driven ion toroidal rotation. Physics of Plasmas, 2014, 21, 056106.	1.9	16
49	Overview of MAST results. Nuclear Fusion, 2015, 55, 104008.	3.5	16
50	Overview of recent physics results from MAST. Nuclear Fusion, 2017, 57, 102007.	3.5	16
51	Turbulent impurity transport simulations in Wendelstein 7-X plasmas. Journal of Plasma Physics, 2021, 87, .	2.1	16
52	Electrostatic turbulence in tokamaks on transport time scales. Plasma Physics and Controlled Fusion, 2008, 50, 115006.	2.1	15
53	Intrinsic rotation with gyrokinetic models. Physics of Plasmas, 2012, 19, 056116.	1.9	15
54	Perpendicular momentum injection by lower hybrid wave in a tokamak. Plasma Physics and Controlled Fusion, 2012, 54, 125005.	2.1	14

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55	Semianalytical calculation of the zonal-flow oscillation frequency in stellarators. Plasma Physics and Controlled Fusion, 2017, 59, 065005.	2.1	13
56	A model of the two-stage Hall thruster discharge. Journal of Applied Physics, 2005, 98, 023303.	2.5	12
57	Radially global $\hat{\nu}$ computation of neoclassical phenomena in a tokamak pedestal. Plasma Physics and Controlled Fusion, 2014, 56, 045005.	2.1	12
58	Reduction of core turbulence in I-mode plasmas in Alcator C-Mod. Nuclear Fusion, 2014, 54, 083019.	3.5	12
59	Overview of recent TJ-II stellarator results. Nuclear Fusion, 2019, 59, 112019.	3.5	12
60	A model for the fast evaluation of prompt losses of energetic ions in stellarators. Nuclear Fusion, 2021, 61, 116059.	3.5	12
61	Turbulent Transport and Heating of Trace Heavy Ions in Hot Magnetized Plasmas. Physical Review Letters, 2012, 109, 185003.	7.8	11
62	Kinetic effects on a tokamak pedestal ion flow, ion heat transport and bootstrap current. Plasma Physics and Controlled Fusion, 2013, 55, 045009.	2.1	11
63	Stellarator bootstrap current and plasma flow velocity at low collisionality. Journal of Plasma Physics, 2017, 83, .	2.1	11
64	Symmetry breaking in MAST plasma turbulence due to toroidal flow shear. Plasma Physics and Controlled Fusion, 2017, 59, 034002.	2.1	11
65	Solution to a collisionless shallow-angle magnetic presheath with kinetic ions. Plasma Physics and Controlled Fusion, 2018, 60, 125002.	2.1	11
66	Beam model of Doppler backscattering. Plasma Physics and Controlled Fusion, 2022, 64, 095002.	2.1	11
67	Optimizing stellarators for large flows. Plasma Physics and Controlled Fusion, 2014, 56, 094003.	2.1	10
68	Turbulent momentum transport due to neoclassical flows. Plasma Physics and Controlled Fusion, 2015, 57, 125006.	2.1	10
69	Parallel impurity dynamics in the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2016, 58, 074009.	2.1	10
70	Gyrokinetic equivalence. Plasma Physics and Controlled Fusion, 2009, 51, 065002.	2.1	9
71	Turbulent momentum pinch of diamagnetic flows in a tokamak. Nuclear Fusion, 2014, 54, 022002.	3.5	9
72	Overview of the TJ-II stellarator research programme towards model validation in fusion plasmas. Nuclear Fusion, 2022, 62, 042025.	3.5	9

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73	Interpreting radial correlation Doppler reflectometry using gyrokinetic simulations. Plasma Physics and Controlled Fusion, 2022, 64, 055019.	2.1	9
74	Comment on "On higher order corrections to gyrokinetic Vlasov-Poisson equations in the long wavelength limit" [Phys. Plasmas 16, 044506 (2009)]. Physics of Plasmas, 2009, 16, 124701.	1.9	8
75	Non-physical momentum sources in slab geometry gyrokinetics. Plasma Physics and Controlled Fusion, 2010, 52, 085011.	2.1	8
76	Radial transport of toroidal angular momentum in tokamaks. Plasma Physics and Controlled Fusion, 2015, 57, 075006.	2.1	8
77	Fast simulations for large aspect ratio stellarators with the neoclassical code KNOSOS. Nuclear Fusion, 0, , .	3.5	8
78	Extended electron tails in electrostatic microinstabilities and the nonadiabatic response of passing electrons. Plasma Physics and Controlled Fusion, 2022, 64, 055004.	2.1	8
79	The power threshold of H-mode access in mixed hydrogen-tritium and pure tritium plasmas at JET with ITER-like wall. Nuclear Fusion, 2022, 62, 086005.	3.5	8
80	Equivalence of two independent calculations of the higher order guiding center Lagrangian. Physics of Plasmas, 2014, 21, 104506.	1.9	7
81	Equivalence of two different approaches to global gyrokinetic simulations. Plasma Physics and Controlled Fusion, 2015, 57, 054003.	2.1	7
82	A scale-separated approach for studying coupled ion and electron scale turbulence. Plasma Physics and Controlled Fusion, 2019, 61, 065025.	2.1	7
83	Turbulent transport of impurities in 3D devices. Nuclear Fusion, 2021, 61, 116019.	3.5	7
84	Gyrokinetic simulations in stellarators using different computational domains. Nuclear Fusion, 2021, 61, 116074.	3.5	7
85	The effect of lower hybrid waves on JET plasma rotation. Nuclear Fusion, 2017, 57, 034002.	3.5	6
86	Optimized up-down asymmetry to drive fast intrinsic rotation in tokamaks. Nuclear Fusion, 2018, 58, 026003.	3.5	6
87	Impact of main ion pressure anisotropy on stellarator impurity transport. Nuclear Fusion, 2020, 60, 016035.	3.5	6
88	Limitations, insights and improvements to gyrokinetics. Nuclear Fusion, 2009, 49, 095026.	3.5	5
89	Analytic fluid theory of beam spiraling in high-intensity cyclotrons. Physical Review Special Topics: Accelerators and Beams, 2013, 16, .	1.8	5
90	Conditions for up-down asymmetry in the core of tokamak equilibria. Nuclear Fusion, 2014, 54, 093003.	3.5	5

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91	Intuition for the radial penetration of flux surface shaping in tokamaks. Plasma Physics and Controlled Fusion, 2015, 57, 035006.	2.1	5
92	Flow damping in stellarators close to quasisymmetry. Plasma Physics and Controlled Fusion, 2015, 57, 014014.	2.1	5
93	Electromagnetic zonal flow residual responses. Journal of Plasma Physics, 2017, 83, .	2.1	5
94	Turbulent transport of toroidal angular momentum in low flow gyrokinetics. Plasma Physics and Controlled Fusion, 2010, 52, 059801-059801.	2.1	4
95	Comment on "Nonlinear gyrokinetic theory with polarization drift"[Phys. Plasmas 17, 082304 (2010)]. Physics of Plasmas, 2010, 17, 124701.	1.9	4
96	Dependence on ion temperature of shallow-angle magnetic presheaths with adiabatic electrons. Journal of Plasma Physics, 2019, 85, .	2.1	4
97	Intrinsic rotation driven by turbulent acceleration. Plasma Physics and Controlled Fusion, 2019, 61, 025003.	2.1	4
98	Continuous-in-time approach to flow shear in a linearly implicit local gyrokinetic code. Journal of Plasma Physics, 2021, 87, .	2.1	4
99	A current-driven electromagnetic mode in sheared and toroidal configurations. Plasma Physics and Controlled Fusion, 2014, 56, 035011.	2.1	3
100	Poloidal tilting symmetry of high order tokamak flux surface shaping in gyrokinetics. Plasma Physics and Controlled Fusion, 2016, 58, 045023.	2.1	3
101	Turbulent momentum transport due to the beating between different tokamak flux surface shaping effects. Plasma Physics and Controlled Fusion, 2017, 59, 024007.	2.1	2
102	Full wave simulation of RF waves in cold plasma with the stabilized open-source finite element tool ERMES. AIP Conference Proceedings, 2020, , .	0.4	2
103	Electrostatic gyrokinetic simulations in Wendelstein 7-X geometry: benchmark between the codes <code>stella</code> and <code>GENE</code> . Journal of Plasma Physics, 2022, 88, .	2.1	2
104	Effect of the Shafranov shift and the gradient of $\langle i \rangle^2$ on intrinsic momentum transport in up-down asymmetric tokamaks. Plasma Physics and Controlled Fusion, 2016, 58, 125015.	2.1	1
105	Effect on plasma rotation of lower hybrid (LH) waves in Alcator C-Mod. , 2014, , .		0
106	Scaling of up-down asymmetric turbulent momentum flux with poloidal shaping mode number in tokamaks. Plasma Physics and Controlled Fusion, 2016, 58, 055016.	2.1	0
107	Electromagnetic zonal flow residual responses " Corrigendum. Journal of Plasma Physics, 2020, 86, .	2.1	0
108	Sheath collapse at critical shallow angle due to kinetic effects. Plasma Physics and Controlled Fusion, 0, , .	2.1	0