Gabriel G Plunk

List of Publications by Year
in descending order

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40 papers	969 citations	471509 17 h-index	434195 31 g-index
40 all docs	40 docs citations	40 times ranked	609 citing authors

#	Article	IF	Citations
1	Nonlinear Phase Mixing and Phase-Space Cascade of Entropy in Gyrokinetic Plasma Turbulence. Physical Review Letters, 2009, 103, 015003.	7.8	107
2	Gyrokinetic turbulence: a nonlinear route to dissipation through phase space. Plasma Physics and Controlled Fusion, 2008, 50, 124024.	2.1	106
3	Multiscale gyrokinetics for rotating tokamak plasmas: fluctuations, transport and energy flows. Reports on Progress in Physics, 2013, 76, 116201.	20.1	78
4	Controlling Turbulence in Present and Future Stellarators. Physical Review Letters, 2014, 113, 155001.	7.8	70
5	Resilience of Quasi-Isodynamic Stellarators against Trapped-Particle Instabilities. Physical Review Letters, 2012, 108, 245002.	7.8	59
6	Two-dimensional gyrokinetic turbulence. Journal of Fluid Mechanics, 2010, 664, 407-435.	3.4	52
7	Advances in stellarator gyrokinetics. Nuclear Fusion, 2015, 55, 053030.	3.5	42
8	Direct construction of optimized stellarator shapes. Part 2. Numerical quasisymmetric solutions. Journal of Plasma Physics, 2019, 85, .	2.1	41
9	Collisionless microinstabilities in stellarators. III. The ion-temperature-gradient mode. Physics of Plasmas, 2014, 21, .	1.9	40
10	Collisionless microinstabilities in stellarators. I. Analytical theory of trapped-particle modes. Physics of Plasmas, 2013, 20, 122505.	1.9	38
11	Suppression of electrostatic micro-instabilities in maximum-J stellarators. Plasma Physics and Controlled Fusion, 2020, 62, 035005.	2.1	37
12	Turbulence Mechanisms of Enhanced Performance Stellarator Plasmas. Physical Review Letters, 2020, 125, 075001.	7.8	32
13	Quasi-axisymmetric magnetic fields: weakly non-axisymmetric case in a vacuum. Journal of Plasma Physics, 2018, 84, .	2.1	26
14	Direct construction of optimized stellarator shapes. Part 3. Omnigenity near the magneticÂaxis. Journal of Plasma Physics, 2019, 85, .	2.1	23
15	Energy Transfer and Dual Cascade in Kinetic Magnetized Plasma Turbulence. Physical Review Letters, 2011, 106, 165003.	7.8	19
16	Landau damping in a turbulent setting. Physics of Plasmas, 2013, 20, .	1.9	18
17	Stellarators Resist Turbulent Transport on the Electron Larmor Scale. Physical Review Letters, 2019, 122, 035002.	7.8	17
18	Global gyrokinetic simulations of ITG turbulence in the magnetic configuration space of the Wendelstein 7-X stellarator. Plasma Physics and Controlled Fusion, 2020, 62, 105005.	2.1	17

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19	Generalized universal instability: transient linear amplification and subcritical turbulence. Journal of Plasma Physics, 2015, 81, .	2.1	15
20	Distinct Turbulence Saturation Regimes in Stellarators. Physical Review Letters, 2017, 118, 105002.	7.8	15
21	Collisionless microinstabilities in stellarators. Part 4. The ion-driven trapped-electron mode. Journal of Plasma Physics, 2017, 83, .	2.1	14
22	Considering fluctuation energy as a measure of gyrokinetic turbulence. New Journal of Physics, 2012, 14, 103030.	2.9	12
23	The universal instability in general geometry. Physics of Plasmas, 2015, 22, .	1.9	11
24	Turbulence mitigation in maximum-J stellarators with electron-density gradient. Journal of Plasma Physics, 2022, 88, .	2.1	11
25	Electrostatic stability of electronâ€“positron plasmas in dipole geometry. Journal of Plasma Physics, 2018, 84, .	2.1	10
26	Irreversible energy flow in forced Vlasov dynamics. European Physical Journal D, 2014, 68, 1.	1.3	9
27	Freely decaying turbulence in two-dimensional electrostatic gyrokinetics. Physics of Plasmas, 2012, 19, .	1.9	8
28	Geometric stabilization of the electrostatic ion-temperature-gradient driven instability. I. Nearly axisymmetric systems. Physics of Plasmas, 2016, 23, 082516.	1.9	6
29	A Look at Phase Space Intermittency in Magnetized Plasma Turbulence. Astrophysical Journal, 2019, 886, 65.	4.5	6
30	Geometric stabilization of the electrostatic ion-temperature-gradient driven instability. II. Non-axisymmetric systems. Physics of Plasmas, 2020, 27, .	1.9	4
31	Phase contrast imaging measurements and numerical simulations of turbulent density fluctuations in gas-fuelled ECRH discharges in Wendelstein 7-X. Journal of Plasma Physics, 2021, 87, .	2.1	4
32	Predicting the Dimits shift through reduced mode tertiary instability analysis in a strongly driven gyrokinetic fluid limit. Journal of Plasma Physics, 2021, 87, .	2.1	4
33	Upper Bounds on Gyrokinetic Instabilities in Magnetized Plasmas. Physical Review Letters, 2021, 127, 155001.	7.8	4
34	Perturbing an axisymmetric magnetic equilibrium to obtain a quasi-axisymmetric stellarator. Journal of Plasma Physics, 2020, 86, .	2.1	3
35	Calculating the linear critical gradient for the ion-temperature-gradient mode in magnetically confined plasmas. Journal of Plasma Physics, 2021, 87, .	2.1	3
36	Predicting the Z-pinch Dimits shift through gyrokinetic tertiary instability analysis of the entropy mode. Journal of Plasma Physics, 2022, 88, .	2.1	3

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37	Direct construction of optimized stellarator shapes. Part 3. Omnigenity near the magnetic axis â€“ ERRATUM. Journal of Plasma Physics, 2021, 87, .	2.1	2
38	Energetic bounds on gyrokinetic instabilities. Part 1. Fundamentals. Journal of Plasma Physics, 2022, 88, .	2.1	2
39	Energetic bounds on gyrokinetic instabilities. Part 2. Modes of optimal growth. Journal of Plasma Physics, 2022, 88, .	2.1	1
40	Enstrophy non-conservation and the forward cascade of energy in two-dimensional electrostatic magnetized plasma turbulence. Journal of Plasma Physics, 2020, 86, .	2.1	0