Alain Ghizzo

List of Publications by Year
in descending order

40 papers	1,150 citations	567281 15 h-index	377865 34 g-index
41 all docs	41 docs citations	41 times ranked	488 citing authors

#	Article	IF	Citations
1	The Semi-Lagrangian Method for the Numerical Resolution of the Vlasov Equation. Journal of Computational Physics, 1999, 149, 201-220.	3.8	356
2	A Vlasov code for the numerical simulation of stimulated raman scattering. Journal of Computational Physics, 1990, 90, 431-457.	3.8	88
3	Stability of Bernsteinâ€“Greeneâ€“Kruskal plasma equilibria. Numerical experiments over a long time. Physics of Fluids, 1988, 31, 72-82.	1.4	84
4	Instability of the time splitting scheme for the one-dimensional and relativistic Vlasovâ€“Maxwell system. Journal of Computational Physics, 2003, 185, 512-531.	3.8	62
5	Trapped-ion driven turbulence in tokamak plasmas. Plasma Physics and Controlled Fusion, 2000, 42, 949-971.	2.1	52
6	A nonperiodic Eulerâ€“Vlasov code for the numerical simulation of laserâ€“plasma beat wave acceleration and Raman scattering. Physics of Fluids B, 1990, 2, 1028-1037.	1.7	48
7	A non-periodic 2D semi-Lagrangian Vlasov code for laserâ€“plasma interaction on parallel computer. Journal of Computational Physics, 2003, 186, 47-69.	3.8	42
8	Persistent subplasma-frequency kinetic electrostatic electron nonlinear waves. Physics of Plasmas, 2009, 16, 042105.	1.9	35
9	Saturation process induced by vortex-merging in numerical Vlasov-Maxwell experiments of stimulated Raman backscattering. Physics of Plasmas, 2007, 14, .	1.9	34
10	Stimulated Raman scattering: Action evolution and particle trapping via Eulerâ€“Vlasov fluid simulation. Physics of Fluids B, 1992, 4, 2523-2537.	1.7	33
11	An Eulerian Code for the Study of the Drift-Kinetic Vlasov Equation. Journal of Computational Physics, 1993, 108, 105-121.	3.8	29
12	Two-Dimensional Vlasov Simulation of Raman Scattering and Plasma Beatwave Acceleration on Parallel Computers. Journal of Computational Physics, 1999, 151, 458-478.	3.8	26
13	Streamer-induced transport in the presence of trapped ion modes in tokamak plasmas. Physics of Plasmas, 2010, 17, .	1.9	20
14	Shear-flow trapped-ion-mode interaction revisited. I. Influence of low-frequency zonal flow on ion-temperature-gradient driven turbulence. Physics of Plasmas, 2015, 22, .	1.9	17
15	BGK structures as quasi-particles. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 120, 191-195.	2.1	16
16	A multi-stream Vlasov modeling unifying relativistic Weibel-type instabilities. Europhysics Letters, 2011, 95, 45002.	2.0	15
17	Shear-flow trapped-ion-mode interaction revisited. II. Intermittent transport associated with low-frequency zonal flow dynamics. Physics of Plasmas, 2015, 22, .	1.9	15
18	A hybrid Eulerian Vlasov code. I. Study of highâ€frequency beatwave experiment and Manleyâ€“Rowe action evolution in a finite causal system. Physics of Plasmas, 1996, 3, 650-668.	1.9	14

#	Article	IF	Citations
19	Parallel implementation of a relativistic semi-Lagrangian Vlasovâ€“Maxwell solver. European Physical Journal D, 2017, 71, 1.	1.3	14
20	Fluid description of Weibel-type instabilities via full pressure tensor dynamics. Europhysics Letters, 2016, 115, 45001.	2.0	13
21	Vlasov models for kinetic Weibel-type instabilities. Journal of Plasma Physics, 2017, 83, .	2.1	12
22	Vlasov Models for Laserâ€Plasma Interaction. Transport Theory and Statistical Physics, 2005, 34, 103-126.	0.4	10
23	Multi-stream Vlasov model for the study of relativistic Weibel-type instabilities. Plasma Physics and Controlled Fusion, 2012, 54, 085004.	2.1	10
24	On the multistream approach of relativistic Weibel instability. I. Linear analysis and specific illustrations. Physics of Plasmas, 2013, 20, .	1.9	10
25	On the multistream approach of relativistic Weibel instability. III. Comparison with full-kinetic Vlasov simulations. Physics of Plasmas, 2013, 20, .	1.9	10
26	Nonlinear evolution of the beam-plasma instabilities. Physics Letters, Section A: General, Atomic and Solid State Physics, 1988, 129, 453-458.	2.1	9
27	Hamiltonian stochastic processes induced by successive wave-particle interactions in stimulated Raman scattering. Physical Review E, 2009, 79, 046404.	2.1	9
28	Integration of Vlasov equation by a fast Fourier Eulerian code. Computer Physics Communications, 1989, 52, 375-382.	7.5	8
29	Transport barriers associated to the resonant interaction between trapped particle modes triggered by plasma polarization injection. Europhysics Letters, 2017, 119, 15003.	2.0	8
30	Multiparametric study of tearing modes in thin current sheets. Physics of Plasmas, 2020, 27, .	1.9	8
31	On the multistream approach of relativistic Weibel instability. II. Bernstein-Greene-Kruskal-type waves in magnetic trapping. Physics of Plasmas, 2013, 20, 082110.	1.9	7
32	Vlasov models for the study of stimulated Raman scattering and beatwave acceleration scenario. Communications in Nonlinear Science and Numerical Simulation, 2008, 13, 72-80.	3.3	5
33	Nonlinear nature of kinetic undamped waves induced by electrostatic turbulence in stimulated Raman backscattering. European Physical Journal D, 2014, 68, 1.	1.3	5
34	Low- and high-frequency nature of oblique filamentation modes. I. Linear theory. Physics of Plasmas, 2020, 27, .	1.9	5
35	The model of particles modes. II. Transition to a fishbone-like state triggered by global synchronization and energetic particles. Physics of Plasmas, 2022, 29, .	1.9	5
36	A pressure tensor description for the time-resonant Weibel instability. Journal of Plasma Physics, 2017, 83, .	2.1	4

#	Article	IF	Citations
37	Transport Barrier Triggered by Resonant Three-Wave Processes Between Trapped-Particle-Modes and Zonal Flow. Plasma, 2019, 2, 229-257.	1.8	3
38	Low- and high-frequency nature of oblique filamentation modes. II. Vlasovâ€“Maxwell simulations of collisionless heating process. Physics of Plasmas, 2020, 27, .	1.9	3
39	Momentum transfer driven by fluctuations in relativistic counter-propagating electron beams. Plasma Physics and Controlled Fusion, 2021, 63, 055007.	2.1	3
40	The model of particles modes. I. A paradigm for phase synchronization in tokamak turbulence. Physics of Plasmas, 2022, 29, 042506.	1.9	3