Cesare Tronci

List of Publications by Year
in descending order

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52	728	516710	580821
papers	citations	16	25
		h-index	g-index

55	55	55	325
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evolution of hybrid quantumâ€“classical wavefunctions. Physica D: Nonlinear Phenomena, 2022, 440, 133450.	2.8	9
2	From Quantum Hydrodynamics toÂKoopman Wavefunctions II. Lecture Notes in Computer Science, 2021, , 311-319.	1.3	3
3	Koopman wavefunctions and Clebsch variables in Vlasovâ€“Maxwell kinetic theory. Journal of Plasma Physics, 2021, 87, .	2.1	9
4	The bohmion method in nonadiabatic quantum hydrodynamics. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 495201.	2.1	6
5	From Quantum Hydrodynamics toÂKoopman Wavefunctions I. Lecture Notes in Computer Science, 2021, , 302-310.	1.3	4
6	Regularized Born-Oppenheimer molecular dynamics. Physical Review A, 2020, 102, .	2.5	7
7	Variational mean-fluctuation splitting and drift-fluid models. Plasma Physics and Controlled Fusion, 2020, 62, 085006.	2.1	2
8	A geometric diffuse-interface method for droplet spreading. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20190222.	2.1	1
9	Madelung transform and probability densities in hybrid quantumâ€“classical dynamics. Nonlinearity, 2020, 33, 5383-5424.	1.4	20
10	Geometry of Nonadiabatic Quantum Hydrodynamics. Acta Applicandae Mathematicae, 2019, 162, 63-103.	1.0	16
11	Koopman wavefunctions and classicalâ€“quantum correlation dynamics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180879.	2.1	39
12	A variational principle for fluid sloshing with vorticity, dynamically coupled to vessel motion. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180642.	2.1	7
13	Momentum maps for mixed states in quantum and classical mechanics. Journal of Geometric Mechanics, 2019, 11, 639-656.	0.8	8
14	A low-frequency variational model for energetic particle effects in the pressure-coupling scheme. Journal of Plasma Physics, 2018, 84, .	2.1	5
15	Variational approach to low-frequency kinetic-MHD in the current coupling scheme. Plasma Physics and Controlled Fusion, 2017, 59, 045013.	2.1	23
16	Electron inertia and quasi-neutrality in the Weibel instability. Journal of Plasma Physics, 2017, 83, .	2.1	2
17	Geometry and dynamics of Gaussian wave packets and their Wigner transforms. Journal of Mathematical Physics, 2017, 58, .	1.1	11
18	Existence of global weak solutions to a hybrid Vlasov-MHD model for magnetized plasmas. Proceedings of the London Mathematical Society, 2017, 115, 854-896.	1.3	1

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19	Grid coupling mechanism in the semi-implicit adaptive Multi-Level Multi-Domain method. Journal of Physics: Conference Series, 2016, 719, 012019.	0.4	0
20	Variational formulations of guiding-center Vlasov-Maxwell theory. Physics of Plasmas, 2016, 23, 062107.	1.9	21
21	From liquid crystal models to the guiding-center theory of magnetized plasmas. Annals of Physics, 2016, 371, 323-337.	2.8	4
22	Hamiltonian approach to Ehrenfest expectation values and Gaussian quantum states. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20150777.	2.1	8
23	Geometry and symmetry of quantum and classical-quantum variational principles. Journal of Mathematical Physics, 2015, 56, .	1.1	13
24	Equivalent variational approaches to biaxial liquid crystal dynamics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150308.	2.1	1
25	Energy-Casimir stability of hybrid Vlasov-MHD models. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 185501.	2.1	7
26	Neutral Vlasov kinetic theory of magnetized plasmas. Physics of Plasmas, 2015, 22, .	1.9	22
27	Hybrid Vlasov-MHD models: Hamiltonian vs. non-Hamiltonian. Plasma Physics and Controlled Fusion, 2014, 56, 095008.	2.1	36
28	Equivalent Theories of Liquid Crystal Dynamics. Archive for Rational Mechanics and Analysis, 2013, 210, 773-811.	2.4	17
29	A Lagrangian kinetic model for collisionless magnetic reconnection. Plasma Physics and Controlled Fusion, 2013, 55, 035001.	2.1	9
30	Geometric dynamics on the automorphism group of principal bundles: Geodesic flows, dual pairs and chromomorphism groups. Journal of Geometric Mechanics, 2013, 5, 39-84.	0.8	8
31	Collisionless kinetic theory of rolling molecules. Kinetic and Related Models, 2013, 6, 429-458.	0.9	2
32	Multiscale turbulence models based on convected fluid microstructure. Journal of Mathematical Physics, 2012, 53, .	1.1	12
33	Vlasov moment flows and geodesics on the Jacobi group. Journal of Mathematical Physics, 2012, 53, .	1.1	14
34	Euler-PoincarÃ© Approaches to Nematodynamics. Acta Applicandae Mathematicae, 2012, 120, 127-151.	1.0	8
35	Hybrid models for perfect complex fluids with multipolar interactions. Journal of Geometric Mechanics, 2012, 4, 333-363.	0.8	5
36	Euler-PoincarÃ© formulation of hybrid plasma models. Communications in Mathematical Sciences, 2012, 10, 191-222.	1.0	22

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37	The helicity and vorticity of liquid-crystal flows. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 1197-1213.	2.1	9
38	Reduction theory for symmetry breaking with applications to nematic systems. Physica D: Nonlinear Phenomena, 2010, 239, 1929-1947.	2.8	31
39	Double-bracket dissipation in kinetic theory for particles with anisotropic interactions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 2991-3012.	2.1	9
40	Hamiltonian approach to hybrid plasma models. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 375501.	2.1	30
41	Singular solutions of a modified two-component Camassa-Holm equation. Physical Review E, 2009, 79, 016601.	2.1	113
42	Geodesic flows on semidirect-product Lie groups: geometry of singular measure-valued solutions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 457-476.	2.1	21
43	Geodesic Vlasov equations and their integrable moment closures. Journal of Geometric Mechanics, 2009, 1, 181-208.	0.8	31
44	Geometric gradient-flow dynamics with singular solutions. Physica D: Nonlinear Phenomena, 2008, 237, 2952-2965.	2.8	11
45	Vlasov moments, integrable systems and singular solutions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 1024-1033.	2.1	24
46	Geometry of Vlasov kinetic moments: A bosonic Fock space for the symmetric Schouten bracket. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 4184-4196.	2.1	19
47	Kinetic models of oriented self-assembly. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 344010.	2.1	4
48	Emergent singular solutions of nonlocal density-magnetization equations in one dimension. Physical Review E, 2008, 77, 036211.	2.1	4
49	Formulation of the relativistic moment implicit particle-in-cell method. Physics of Plasmas, 2007, 14, 042308.	1.9	20
50	Geometric dissipation in kinetic equations. Comptes Rendus Mathematique, 2007, 345, 297-302.	0.3	8
51	CLUSTER: concept study and design of a low-medium Î² accelerating structure. Nuclear Physics, Section B, Proceedings Supplements, 2007, 172, 277-279.	0.4	1
52	CLUSTER: A high-frequency H-mode coupled cavity linac for low and medium energies. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 579, 924-936.	1.6	3