Armando Majorana

List of Publications by Year
in descending order

58 papers	907 citations	430874 18 h-index	477307 29 g-index
59 all docs	59 docs citations	59 times ranked	267 citing authors

#	Article	IF	Citations
1	Numerical solutions to a microcontinuum model using WENO schemes. Continuum Mechanics and Thermodynamics, 2020, 32, 945-957.	2.2	1
2	Deterministic numerical solutions to a semi-discrete Boltzmann equation. AIP Conference Proceedings, 2019, , .	0.4	0
3	Simulation of Bipolar Charge Transport in Graphene by Using a Discontinuous Galerkin Method. Communications in Computational Physics, 2019, 26, 114-134.	1.7	20
4	A BGK model for charge transport in graphene. Communications in Applied and Industrial Mathematics, 2019, 10, 153-161.	0.3	0
5	Discontinuous Galerkin deterministic solvers for a Boltzmannâ€“Poisson model of hot electron transport by averaged empirical pseudopotential band structures. Computer Methods in Applied Mechanics and Engineering, 2017, 321, 209-234.	6.6	2
6	Numerical Solutions of the Spatially Homogeneous Boltzmann Equation for Electrons in n-Doped Graphene on a Substrate. Journal of Computational and Theoretical Transport, 2017, 46, 176-185.	0.8	4
7	Cross validation of discontinuous Galerkin method and Monte Carlo simulations of charge transport in graphene on substrate. Ricerche Di Matematica, 2017, 66, 201-220.	1.0	31
8	Approximate explicit stationary solutions to a Vlasov equation for planetary rings. Kinetic and Related Models, 2017, 10, 467-479.	0.9	1
9	Charge transport and mobility in monolayer graphene. Journal of Mathematics in Industry, 2016, 7, .	1.2	19
10	Deterministic solutions of the Boltzmann equation for charge transport in graphene on substrates. , 2016, , .		0
11	Deterministic Solutions of the Transport Equation for Charge Carrier in Graphene. Mathematics in Industry, 2016, , 741-748.	0.3	0
12	DSMC method consistent with the Pauli exclusion principle and comparison with deterministic solutions for charge transport in graphene. Journal of Computational Physics, 2015, 302, 267-284.	3.8	50
13	A fast approach to discontinuous Galerkin solvers for Boltzmann-Poisson transport systems for full electronic bands and phonon scattering. , 2012, , .		0
14	A brief survey of the discontinuous Galerkin method for the Boltzmann-Poisson equations. BoletÃn De La Sociedad EspaÃ'ola De MatemÃ¡tica Aplicada, 2011, 54, 47-64.	0.9	19
15	Discontinuous Galerkin methods for the Boltzmann-Poisson systems in semiconductor device simulations. , 2011, , .		2
16	A numerical model of the Boltzmann equation related to the discontinuous Galerkin method. Kinetic and Related Models, 2011, 4, 139-151.	0.9	12
17	Performance of a discontinuous Galerkin solver for semiconductor boltzmann equations. , 2010, , .		1
18	A Discontinuous Galerkin Solver for Full-Band Boltzmann-Poisson Models. , 2009, , .		8

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19	A discontinuous Galerkin solver for Boltzmannâ€“Poisson systems in nano devices. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3130-3150.	6.6	62
20	Discontinuous Galerkin solver for Boltzmann-Poisson transients. Journal of Computational Electronics, 2008, 7, 119-123.	2.5	18
21	DSMC versus WENO-BTE: A double gate MOSFET example. Journal of Computational Electronics, 2007, 5, 471-474.	2.5	7
22	Discontinuous Galerkin Solver for the Semiconductor Boltzmann Equation. , 2007, , 257-260.		5
23	Deterministic Simulation of the Boltzmann--Poisson System in GaAs-Based Semiconductors. SIAM Journal of Scientific Computing, 2006, 27, 1981-2009.	2.8	11
24	2D semiconductor device simulations by WENO-Boltzmann schemes: Efficiency, boundary conditions and comparison to Monte Carlo methods. Journal of Computational Physics, 2006, 214, 55-80.	3.8	48
25	On the Cauchy problem for spatially homogeneous semiconductor Boltzmann equations: existence and uniqueness. Annali Di Matematica Pura Ed Applicata, 2005, 184, 275-296.	1.0	2
26	HOW TO TACKLE THE BOLTZMANN EQUATION FOR INDUSTRIAL SEMICONDUCTOR DEVICE SIMULATION. , 2005, , .		0
27	Charge transport in 1D silicon devices via Monte Carlo simulation and Boltzmannâ€Poisson solver. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2004, 23, 410-425.	0.9	21
28	A Direct Solver for 2D Non-Stationary Boltzmann-Poisson Systems for Semiconductor Devices: A MESFET Simulation by WENO-Boltzmann Schemes. Journal of Computational Electronics, 2003, 2, 375-380.	2.5	36
29	A WENO-solver for the transients of Boltzmannâ€“Poisson system for semiconductor devices: performance and comparisons with Monte Carlo methods. Journal of Computational Physics, 2003, 184, 498-525.	3.8	120
30	High field mobility and diffusivity of an electron gas in silicon devices. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2002, 21, 31-44.	0.9	1
31	A WENO-Solver for the 1D Non-Stationary Boltzmannâ€“Poisson System for Semiconductor Devices. Journal of Computational Electronics, 2002, 1, 365-370.	2.5	19
32	A Finite Difference Scheme Solving the Boltzmannâ€“Poisson System for Semiconductor Devices. Journal of Computational Physics, 2001, 174, 649-668.	3.8	56
33	Space Homogeneous Solutions of the Linear Semiconductor Boltzmann Equation. Journal of Mathematical Analysis and Applications, 2001, 259, 609-629.	1.0	19
34	A boundary value problem for a kinetic model describing electron flow in a semiconductor. Mathematical Methods in the Applied Sciences, 2000, 23, 735-750.	2.3	1
35	The Velocity Overshoot in Semiconductors According to a Transport Model Derived from the Boltzmann Equation. Transport Theory and Statistical Physics, 2000, 29, 805-823.	0.4	3
36	Trend to equilibrium of electron gas in a semiconductor according to the Boltzmann equation. Transport Theory and Statistical Physics, 1998, 27, 547-571.	0.4	9

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37	Space Homogeneous Solutions to the Cauchy Problem for Semiconductor Boltzmann Equations. SIAM Journal on Mathematical Analysis, 1997, 28, 1294-1308.	1.9	11
38	Existence and uniqueness of positive solutions to a linear transport equation in a metric space. Applied Mathematics Letters, 1997, 10, 49-53.	2.7	24
39	Continuous Solutions of a Nonlinear Integral Equation on an Unbounded Domain. Journal of Integral Equations and Applications, 1994, 6, .	0.6	8
40	Equilibrium solutions of the non-linear Boltzmann equation for an electron gas in a semiconductor. Societa Italiana Di Fisica Nuovo Cimento B-General Physics, Relativity Astronomy and Mathematical Physics and Methods, 1993, 108, 871-877.	0.2	26
41	Conservation laws from the Boltzmann equation describing electron-phonon interactions in semiconductors. Transport Theory and Statistical Physics, 1993, 22, 849-859.	0.4	15
42	STATIONARY SOLUTIONS OF HYDRODYNAMIC MODELS FOR SEMICONDUCTOR DEVICE SIMULATION. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 1993, 12, 81-93.	0.9	5
43	A uniqueness theorem for ?â€™=?(?,?),?(?â,€)=?â,€. Proceedings of the American Mathematical Society, 1991, 111, 215-220.	0.8	1
44	A Uniqueness Theorem for y ï¿½ = f(x, y), y(x 0) = y 0. Proceedings of the American Mathematical Society, 1991, 111, 215.	0.8	2
45	Space homogeneous solutions of the Boltzmann equation describing electron-phonon interactions in semiconductors. Transport Theory and Statistical Physics, 1991, 20, 261-279.	0.4	55
46	Relativistic relaxation models for a simple gas. Journal of Mathematical Physics, 1990, 31, 2042-2046.	1.1	4
47	Shock structure in an ultrarelativistic gas. Meccanica, 1990, 25, 77-82.	2.0	3
48	Structure of shock waves in relativistic simple gases. Physics of Fluids, 1988, 31, 1064.	1.4	8
49	Finite moment equations for a relativistic simple gas. Journal of Mathematical Physics, 1988, 29, 987-989.	1.1	1
50	Magnetoacoustic shock waves in a relativistic gas. Physics of Fluids, 1987, 30, 3045.	1.4	23
51	Analytical solutions of the Rankine-Hugoniot relations for a relativistic simple gas. Il Nuovo Cimento B, 1987, 98, 111-118.	0.1	5
52	Analysis of thermal and shear waves according to BKG kinetic model. Zeitschrift Fur Angewandte Mathematik Und Physik, 1985, 36, 699-711.	1.4	6
53	Finite amplitude water waves above a sloping beach. Wave Motion, 1985, 7, 229-233.	2.0	4
54	Shock Structure in Relativistic Fluid-Dynamics. Journal of Non-Equilibrium Thermodynamics, 1985, 10, .	4.2	20

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55	Analysis of thermal, sound, and shear waves according to a relativistic kinetic model. Physics of Fluids, 1985, 28, 1673.	1.4	15
56	Propagation of infinitesimal disturbances in a gas according to a relativistic kinetic model. Meccanica, 1984, 19, 175-181.	2.0	8
57	Shock structure for heat conducting and viscid fluids. Meccanica, 1981, 16, 149-156.	2.0	40
58	On a four-body problem. Celestial Mechanics, 1981, 25, 267-270.	0.1	13