Roberto GarcÃa

List of Publications by Year
in descending order

91	1,325	331670 21	414414 32
papers	citations	h-index	g-index

92	92	92	318
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A high-order spherical harmonics solution to the standard problem in radiative transfer. Astrophysical Journal, 1984, 280, 853.	4.5	76
2	Benchmark results in radiative transfer. Transport Theory and Statistical Physics, 1985, 14, 437-483.	0.4	73
3	The F method for radiative transfer models that include polarization effects. Journal of Quantitative Spectroscopy and Radiative Transfer, 1989, 41, 117-145.	2.3	73
4	A generalized spherical harmonics solution for radiative transfer models that include polarization effects. Journal of Quantitative Spectroscopy and Radiative Transfer, 1986, 36, 401-423.	2.3	72
5	Radiative transfer in finite inhomogeneous plane-parallel atmospheres. Journal of Quantitative Spectroscopy and Radiative Transfer, 1982, 27, 141-148.	2.3	61
6	Particular solutions for the discrete-ordinates method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2000, 64, 219-226.	2.3	49
7	A review of the facile (F_N) method in particle transport theory. Transport Theory and Statistical Physics, 1985, 14, 391-435.	0.4	40
8	The equivalence between two techniques of angular interpolation for the discrete-ordinates method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2000, 64, 517-535.	2.3	37
9	On computing the Chandrasekhar polynomials in high order and high degree. Journal of Quantitative Spectroscopy and Radiative Transfer, 1990, 43, 201-205.	2.3	36
10	Radiative transfer in inhomogeneous atmospheresâ€"Numerical results. Journal of Quantitative Spectroscopy and Radiative Transfer, 1981, 25, 277-283.	2.3	34
11	The linearized Boltzmann equation: Sound-wave propagation in a rarefied gas. Zeitschrift Fur Angewandte Mathematik Und Physik, 2005, 57, 94-122.	1.4	31
12	Multigroup Transport Theory. II. Numerical Results. Nuclear Science and Engineering, 1981, 78, 315-323.	1.1	30
13	Radiative transfer with polarization in a multi-layer medium subject to Fresnel boundary and interface conditions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 115, 28-45.	2.3	29
14	Fresnel boundary and interface conditions for polarized radiative transfer in a multilayer medium. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 306-317.	2.3	28
15	A concise and accurate solution for Poiseuille flow in a plane channel. Journal of Mathematical Physics, 1980, 21, 2760-2763.	1.1	26
16	On discrete spectrum calculations in radiative transfer. Journal of Quantitative Spectroscopy and Radiative Transfer, 1989, 42, 385-394.	2.3	26
17	The linearized Boltzmann equation with Cercignaniâ€"Lampis boundary conditions: Basic flow problems in a plane channel. European Journal of Mechanics, B/Fluids, 2009, 28, 387-396.	2.5	26
18	Multislab multigroup transport theory with L th the order anisotropic scattering. Journal of Computational Physics, 1983, 50, 181-192.	3.8	24

#	Article	IF	Citations
19	Multigroup transport theory with anisotropic scattering. Journal of Computational Physics, 1982, 46, 237-270.	3.8	23
20	A spherical-harmonics solution for radiative-transfer problems with reflecting boundaries and internal sources. Journal of Quantitative Spectroscopy and Radiative Transfer, 1998, 60, 247-260.	2.3	23
21	The viscous-slip, diffusion-slip, and thermal-creep problems for a binary mixture of rigid spheres described by the linearized Boltzmann equation. European Journal of Mechanics, B/Fluids, 2007, 26, 749-778.	2.5	22
22	The McCormack model for gas mixtures: Heat transfer in a plane channel. Physics of Fluids, 2004, 16, 3393-3402.	4.0	21
23	On the use of Fresnel boundary and interface conditions in radiative-transfer calculations for multilayered media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 752-769.	2.3	21
24	Heat transfer between parallel plates: An approach based on the linearized Boltzmann equation for a binary mixture of rigid-sphere gases. Physics of Fluids, 2007, 19, 027102.	4.0	16
25	On the dispersion function in particle transport theory. Zeitschrift Fur Angewandte Mathematik Und Physik, 1994, 33, 801-806.	1.4	15
26	On inverse boundary-condition problems in radiative transfer. Journal of Quantitative Spectroscopy and Radiative Transfer, 1997, 57, 405-410.	2.3	15
27	Radiative transfer in a multi-layer medium subject to Fresnel boundary and interface conditions and uniform illumination by obliquely incident parallel rays. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2151-2170.	2.3	15
28	Viscous-slip, thermal-slip, and temperature-jump coefficients based on the linearized Boltzmann equation (and five kinetic models) with the Cercignaniâ€“Lampis boundary condition. European Journal of Mechanics, B/Fluids, 2010, 29, 181-191.	2.5	15
29	On Angular Flux Computations in Neutron-Transport Theory. Nuclear Science and Engineering, 1982, 81, 474-476.	1.1	14
30	The application of nonclassical orthogonal polynomials in particle transport theory. Progress in Nuclear Energy, 1999, 35, 249-273.	2.9	14
31	A Multiregion Calculation in the Theory of Neutron Diffusion. Nuclear Science and Engineering, 1980, 76, 53-56.	1.1	13
32	On the transport of neutral hydrogen atoms in a hydrogen plasma. Plasma Physics, 1982, 24, 903-922.	0.9	13
33	A stable shifted-legendre projection scheme for generating PN boundary conditions. Annals of Nuclear Energy, 1996, 23, 321-332.	1.8	13
34	A simplified implementation of the discrete-ordinates method for a class of problems in radiative transfer with polarization. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2801-2813.	2.3	13
35	Concise and accurate solutions for Chandrasekhar's X and Y functions. Astrophysical Journal, 1982, 260, 849.	4.5	13
36	Numerical results concerning the effect of anisotropic scattering on the critical-slab problem. Journal Physics D: Applied Physics, 1981, 14, L65-L65.	2.8	12

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37	A generalized spherical harmonics solution basic to the scattering of polarized light. Zeitschrift Fur Angewandte Mathematik Und Physik, 1985, 36, 70-88.	1.4	11
38	A Comparison of Radiances Generated by Selected Methods of Solving the Radiative-Transfer Equation. Transport Theory and Statistical Physics, 2003, 32, 473-503.	0.4	11
39	Channel Flow of a Binary Mixture of Rigid Spheres Described by the Linearized Boltzmann Equation and Driven by Temperature, Pressure, and Concentration Gradients. SIAM Journal on Applied Mathematics, 2007, 67, 1041-1063.	1.8	11
40	An analytical expression for the H matrix relevant to Rayleigh scattering. Journal of Mathematical Analysis and Applications, 1981, 84, 509-518.	1.0	10
41	Some solutions (linear in the spatial variables) and generalized Chapmanâ€“Enskog functions basic to the linearized Boltzmann equations for a binary mixture of rigid spheres. Zeitschrift Fur Angewandte Mathematik Und Physik, 2007, 58, 262-288.	1.4	10
42	Couette flow of a binary mixture of rigid-sphere gases described by the linearized Boltzmann equation. European Journal of Mechanics, B/Fluids, 2008, 27, 823-836.	2.5	10
43	The McCormack model for gas mixtures: Plane Couette flow. Physics of Fluids, 2005, 17, 037102.	4.0	9
44	On the use of a nascent delta function in radiative-transfer calculations for multi-layer media subject to Fresnel boundary and interface conditions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 128-133.	2.3	9
45	The Analytical Discrete Ordinates Method for a One-Dimensional Model of Neutral Particle Transport in Ducts. Nuclear Science and Engineering, 2014, 177, 35-51.	1.1	9
46	The FN method in atmospheric radiative transfer. International Journal of Engineering Science, 1998, 36, 1623-1649.	5.0	8
47	On criticality calculations in multislab geometry. Annals of Nuclear Energy, 2001, 28, 1563-1581.	1.8	8
48	A formulation of the linearized Boltzmann equations for a binary mixture of rigid spheres. European Journal of Mechanics, B/Fluids, 2005, 24, 614-620.	2.5	8
49	On eigenvalue calculations for radiative transfer models that include polarization effects. Zeitschrift Fur Angewandte Mathematik Und Physik, 1984, 35, 308-320.	1.4	7
50	Coupled scalar and vector PN methods for solving multigroup transport problems in multislab geometry. Annals of Nuclear Energy, 2000, 27, 1607-1626.	1.8	7
51	A Numerical Method for Computing Collision, Escape, and Transmission Probabilities in Three Dimensions. Nuclear Science and Engineering, 2003, 144, 200-210.	1.1	7
52	Some exact results basic to the linearized Boltzmann equations for a binary mixture of rigid spheres. Zeitschrift Fur Angewandte Mathematik Und Physik, 2006, 57, 999-1010.	1.4	7
53	On the solution of azimuthally dependent transport problems with the ANISN code. Annals of Nuclear Energy, 1997, 24, 1069-1084.	1.8	6
54	The temperature-jump problem based on the linearized Boltzmann equation for a binary mixture of rigid spheres. European Journal of Mechanics, B/Fluids, 2007, 26, 132-153.	2.5	6

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55	Response to â€œComment on the transmission matrix for a dielectric interfaceâ€• Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2251-2254.	2.3	6
56	The discrete spectrum for radiative transfer with polarization. Journal of Quantitative Spectroscopy and Radiative Transfer, 1987, 38, 295-301.	2.3	5
57	A Note on the P_N Method with Mark Boundary Conditions. Nuclear Science and Engineering, 1996, 124, 358-360.	1.1	5
58	A new quadrature scheme for solving azimuthally dependent transport problems. Transport Theory and Statistical Physics, 1998, 27, 607-624.	0.4	5
59	APNSolution to the Multigroup Slowing-Down Problemâ€”II: The Degenerate Case. Nuclear Science and Engineering, 1998, 130, 70-78.	1.1	5
60	An analysis of the source-function integration technique for postprocessing PN angular fluxes. Annals of Nuclear Energy, 2000, 27, 1217-1226.	1.8	5
61	Approximate One-Dimensional Models for Multigroup Neutral-Particle Transport in Ducts. Transport Theory and Statistical Physics, 2003, 32, 505-543.	0.4	5
62	An analytical discrete-ordinates solution for an improved one-dimensional model of three-dimensional transport in ducts. Annals of Nuclear Energy, 2015, 86, 55-64.	1.8	5
63	A Computationally Viable Version of thePNMethod for Spheres. Nuclear Science and Engineering, 2017, 186, 103-119.	1.1	5
64	TheFNMethod for Multigroup Transport Theory with Upscattering. Nuclear Science and Engineering, 1998, 130, 194-212.	1.1	4
65	THEPNMETHOD FOR CELL CALCULATIONS OF PLATE-TYPE FUEL ASSEMBLIES. Transport Theory and Statistical Physics, 2001, 30, 239-268.	0.4	4
66	Optimized Algorithm for Collision Probability Calculations in Cubic Geometry. Nuclear Science and Engineering, 2004, 147, 148-157.	1.1	4
67	Analytical Discrete-Ordinates Solution for 3D Particle Transport in Ducts as Described by a 1D Model with Three Basis Functions. Journal of Computational and Theoretical Transport, 2016, 45, 335-350.	0.8	4
68	A P N particular solution for the radiative transfer equation in spherical geometry. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 196, 155-158.	2.3	4
69	On the P_N Method in Spherical Geometry: A Stable Solution for the Exterior of a Sphere. Journal of Computational and Theoretical Transport, 2018, 47, 400-423.	0.8	4
70	The Fourier decomposition for a radiative-transfer problem with an asymmetrically reflecting ground. Journal of Quantitative Spectroscopy and Radiative Transfer, 1996, 56, 363-371.	2.3	3
71	Improvements in the ADO Method for a One-Dimensional Model of Neutral Particle Transport in Ducts. Journal of Computational and Theoretical Transport, 2014, 43, 68-82.	0.8	3
72	The linearized Boltzmann equation with Cercignaniâ€“Lampis boundary conditions: Heat transfer in a gas confined by two plane-parallel surfaces. Annals of Nuclear Energy, 2015, 86, 45-54.	1.8	3

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73	A comparison of transport methods for the solution of a problem with shadowing effects in spherical geometry. Annals of Nuclear Energy, 2019, 134, 370-375.	1.8	3
74	Analytical Discrete Ordinates Solution for a 1D Model of Particle Transport in Ducts that Includes Wall Migration. Nuclear Science and Engineering, 2022, 196, 250-275.	1.1	3
75	A Technique for the Evaluation of Angular Integrals in Neutron Transfer Matrix Generatio. Nuclear Science and Engineering, 1986, 94, 70-76.	1.1	2
76	A method for accurate computation of elastic and discrete inelastic scattering transfer matrices. Annals of Nuclear Energy, 1986, 13, 391-397.	1.8	2
77	On computing a class of integrals basic to the FN method in radiative transfer. Journal of Quantitative Spectroscopy and Radiative Transfer, 1992, 48, 221-226.	2.3	2
78	AP_NSolution to the Multigroup Slowing-Down Problemâ€"I: Basic Formulation. Nuclear Science and Engineering, 1998, 130, 60-69.	1.1	2
79	Collision Probabilities inr-Î¸-zGeometry. Nuclear Science and Engineering, 2006, 153, 46-59.	1.1	2
80	Some issues related to polarized radiative transfer in a multilayer medium with a changing index of refraction. Journal of Physics: Conference Series, 2012, 369, 012005.	0.4	2
81	Application of 1D Models to Particle Transport in a Duct of Rectangular Cross Section. Journal of Computational and Theoretical Transport, 2017, 46, 397-409.	0.8	2
82	On computing multigroup transfer matrices for hydrogen. Annals of Nuclear Energy, 1988, 15, 45-50.	1.8	1
83	On computing some functions basic to the FNmethod in radiative transfer. Transport Theory and Statistical Physics, 1996, 25, 659-679.	0.4	1
84	The Transport of Neutral Hydrogen Atoms in a Hydrogen Plasma. Nuclear Science and Engineering, 2000, 136, 140-149.	1.1	1
85	On calculating self-collision probabilities. Annals of Nuclear Energy, 2006, 33, 749-752.	1.8	1
86	Escape and Transmission Probabilities inX-Y-ZGeometry. Nuclear Science and Engineering, 2007, 157, 225-235.	1.1	1
87	Particular solutions of the linearized Boltzmann equation for a binary mixture of rigid spheres. Zeitschrift Fur Angewandte Mathematik Und Physik, 2008, 59, 281-292.	1.4	1
88	On the dispersion function for complex values of the parameter c. Annals of Nuclear Energy, 2014, 69, 203-204.	1.8	1
89	A numerically stable spherical harmonics solution for the neutron transport equation in a spherical shell. Journal of Computational Physics, 2020, 405, 109139.	3.8	1
90	Accurate spherical harmonics solutions for neutron transport problems in multi-region spherical geometry. Journal of Computational Physics, 2021, 424, 109856.	3.8	1

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91	Solution of a Quadratic Eigenvalue Problem Arising from a Model of Particle Flow in Ducts that Includes Wall Migration. International Journal of Applied and Computational Mathematics, 2022, 8, 1.	1.6	1