

Gustavo Gasaneo

List of Publications by Year in descending order

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89
papers

1,183
citations

377584

21
h-index

536525

29
g-index

90
all docs

90
docs citations

90
times ranked

377
citing authors

#	ARTICLE	IF	CITATIONS
1	A simple model to analyse the activation force in eyeball movements. European Physical Journal B, 2020, 93, 1.	0.6	2
2	Models for saccadic motion and postsaccadic oscillations. Physical Review E, 2019, 99, 032422.	0.8	6
3	Complexity analysis of eye-tracking trajectories. European Physical Journal B, 2019, 92, 1.	0.6	5
4	Inertial Movements of the Iris as the Origin of Postsaccadic Oscillations. Physical Review Letters, 2018, 120, 178101.	2.9	10
5	On the Laguerre Representation of Coulomb Functions and the Relation to Orthogonal Polynomials. Advances in Quantum Chemistry, 2018, 76, 79-101.	0.4	0
6	Minimal dynamical description of eye movements. European Physical Journal B, 2017, 90, 1.	0.6	11
7	Generalized Sturmians in the time-dependent frame: effect of a fullerene confining potential. European Physical Journal D, 2017, 71, 1.	0.6	1
8	Beat structure in the solution of scattering problems with nondecaying sources*. European Physical Journal D, 2017, 71, 1.	0.6	0
9	Derivatives of Horn hypergeometric functions with respect to their parameters. Journal of Mathematical Physics, 2017, 58, 073504.	0.5	9
10	Double ionization of helium by proton impact: from intermediate to high momentum transfer. European Physical Journal D, 2017, 71, 1.	0.6	2
11	Double ionization of helium by 2-keV electrons in equal- and unequal-energy configurations. Physical Review A, 2016, 93, .	1.0	7
12	Sturmian bases for two-electron systems in hyperspherical coordinates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 235005.	0.6	3
13	Benchmark for two-photon ionization of atoms with generalized Sturmian functions. European Physical Journal D, 2016, 70, 1.	0.6	2
14	A Sturmian Approach to Photoionization of Molecules. Advances in Quantum Chemistry, 2016, , 3-57.	0.4	15
15	Double ionization of helium by proton impact: A generalized-Sturmian approach. Physical Review A, 2015, 92, .	1.0	8
16	Double ionization of helium by fast electrons with the Generalized Sturmian Functions method. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 055204.	0.6	21
17	Discrepancy between theory and experiment in double ionization of helium by fast electrons. Physical Review A, 2015, 91, .	1.0	7
18	Double photoionization of helium: a generalized Sturmian approach. European Physical Journal D, 2015, 69, 1.	0.6	21

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19	Quasi Sturmian Functions in Problems of a Three-Particle Coulomb Continuum. Russian Physics Journal, 2015, 58, 941-951.	0.2	1
20	Quasi-Sturm Functions in Problems of the Continuous Spectrum. Russian Physics Journal, 2014, 57, 888-897.	0.2	2
21	Correlated $n=1,3$ S states for two-electron atoms in screened potentials. Journal of Physics: Conference Series, 2014, 488, 152015.	0.3	1
22	A Generalized Sturmian Treatment of (e, 3e) Processes Described as a Three-Body Coulomb Problem. Few-Body Systems, 2014, 55, 825-829.	0.7	7
23	Non-homogeneous solutions of a Coulomb Schrödinger equation as basis set for scattering problems. Journal of Mathematical Physics, 2014, 55, 052101.	0.5	12
24	Insights from the zero-angular-momentum wave in single and double ionization of He by fast electrons. Physical Review A, 2014, 89, .	1.0	9
25	Ionization of atomic hydrogen by electrons: the role of the contributions of the pseudo-states in the second Born approximation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2013, 46, 145203.	0.6	10
26	Three-Body Coulomb Problems with Generalized Sturmian Functions. Advances in Quantum Chemistry, 2013, 67, 153-216.	0.4	54
27	S -model calculations for high-energy-electron-impact double ionization of helium. Physical Review A, 2013, 87, .	1.0	24
28	Use of generalized hyperspherical Sturmian functions for a three-body break-up model problem. Journal of Physics B: Atomic, Molecular and Optical Physics, 2013, 46, 015202.	0.6	7
29	A spectral approach based on generalized Sturmian functions for two- and three-body scattering problems. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 045304.	0.7	11
30	An analytically solvable three-body break-up model problem in hyperspherical coordinates. European Physical Journal D, 2012, 66, 1.	0.6	6
31	Mathematical properties of generalized Sturmian functions. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 015201.	0.7	12
32	On the applicability of the exterior complex scaling method for scattering problems including Coulombic potentials. European Physical Journal D, 2012, 66, 1.	0.6	7
33	A special asymptotic limit of a Kampé de Fériet hypergeometric function appearing in nonhomogeneous Coulomb problems. Journal of Mathematical Physics, 2011, 52, 022108.	0.5	2
34	Solving three-body-breakup problems with outgoing-flux asymptotic conditions. Physical Review A, 2011, 84, .	1.0	22
35	Correlated $n=1,3$ S states for coulomb three-body systems. International Journal of Quantum Chemistry, 2011, 111, 4255-4265.	1.0	8
36	Computational methods for Generalized Sturmians basis. Computer Physics Communications, 2011, 182, 1145-1155.	3.0	45

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37	Ground state for two-electron and electron-muon three-body atomic systems. International Journal of Quantum Chemistry, 2010, 110, 1820-1832.	1.0	4
38	A boundary adapted spectral approach for breakup problems. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 101001.	0.6	30
39	Two-body Coulomb problems with sources. Physical Review A, 2010, 82, .	1.0	7
40	A general method to obtain Sturmian functions for continuum and bound state problems with Coulomb interactions. International Journal of Quantum Chemistry, 2010, 110, 963-974.	1.0	8
41	Sturmian expansions for two-electron atomic systems: Singly and doubly excited states. Physical Review A, 2010, 82, .	1.0	13
42	Generating optimal Sturmian basis functions for atomic problems. Physical Review A, 2010, 81, .	1.0	34
43	Discrete sets of Sturmian functions applied to two-electron atoms. Physical Review A, 2009, 79, .	1.0	23
44	Theory of Hyperspherical Sturmians for Three-Body Reactions. Journal of Physical Chemistry A, 2009, 113, 14573-14582.	1.1	20
45	An analytic and parameter-free wavefunction for studying the stability of three-body systems. Hyperfine Interactions, 2009, 193, 135-139.	0.2	0
46	Accurate ground state wavefunctions for several three-body systems. Hyperfine Interactions, 2009, 193, 147-151.	0.2	1
47	Discrete sets of many-body Sturmians. International Journal of Quantum Chemistry, 2009, 109, 125-134.	1.0	16
48	Derivatives of any order of the Gaussian hypergeometric function ${}_2F_1(a, b, c; z)$ with respect to the parameters a, b and c . Journal of Physics A: Mathematical and Theoretical, 2009, 42, 395208.	0.7	33
49	Treatment of the two-body Coulomb problem as a short-range potential. Physical Review A, 2009, 80, .	1.0	7
50	Endohedrally confined helium: Study of mirror collapses. Physical Review A, 2008, 78, .	1.0	30
51	Use of double-bound three-body Coulomb distorted-wave-like basis sets for two-electron wave functions. Physical Review A, 2008, 77, .	1.0	16
52	Derivatives of any order of the confluent hypergeometric function $F_{11}(a, b, z)$ with respect to the parameter a or b . Journal of Mathematical Physics, 2008, 49, .	0.5	56
53	A simple parameter-free wavefunction for the ground state of three-body systems. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 105001.	0.6	8
54	(e,3e) processes on two-electron atoms: Cusp conditions and scaling law. Physical Review A, 2008, 78, .	1.0	7

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55	Interplay of initial and final states for $(e,3e)$ and $(\hat{I}^3,2e)$ processes on helium. <i>Physical Review A</i> , 2008, 77, .	1.0	11
56	Accurate and simple wavefunctions for the helium isoelectronic sequence with correct cusp conditions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2007, 40, 3923-3939.	0.6	36
57	Double-bound equivalent of the three-body Coulomb double-continuum wave function. <i>Physical Review A</i> , 2007, 75, .	1.0	15
58	A simple parameter-free wavefunction for the ground state of two-electron atoms. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2007, 40, 2695-2702.	0.6	12
59	On the orthogonality of initial and final states in $(e,3e)$ and $(,2e)$ collisions. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2007, 161, 73-79.	0.8	5
60	Hylleraas-like functions with the correct cusp conditions: K-shell electrons for the neutral atoms. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2007, 161, 204-206.	0.8	2
61	Sturmian functions in a basis: Critical nuclear charge for N-electron atoms. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2007, 161, 199-203.	0.8	8
62	L2 discretization of Sturmian wave functions for Coulomb-like potentials. <i>International Journal of Quantum Chemistry</i> , 2007, 107, 832-844.	1.0	15
63	Electron impact single ionization of the He-isoelectronic sequence. <i>Brazilian Journal of Physics</i> , 2007, 37, .	0.7	4
64	Exact solution for three particles interacting via zero-range potentials. <i>Physical Review A</i> , 2006, 73, .	1.0	23
65	Solution for boson-diboson elastic scattering at zero energy in the shape-independent model. <i>Physical Review A</i> , 2005, 72, .	1.0	22
66	Accurate Hylleraas-like functions for the He atom with correct cusp conditions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2005, 38, L259-L267.	0.6	27
67	Classical Structures Arising in the Autoionization of He. <i>Physica Scripta</i> , 2004, 70, 251-256.	1.2	3
68	Energy and cusp-conditions study for the He isoelectronic sequence. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004, 217, 12-17.	0.6	14
69	f1: a code to compute Appell's F1 hypergeometric function. <i>Computer Physics Communications</i> , 2004, 157, 32-38.	3.0	16
70	Integral representation of one-dimensional three particle scattering for \hat{I} function interactions. <i>Journal of Mathematical Physics</i> , 2004, 45, 3533-3545.	0.5	6
71	Hyperspherical adiabatic eigenvalues for zero-range potentials. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2002, 35, 2239-2250.	0.6	25
72	A wave function for three charged particles with arbitrary masses. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2002, 192, 150-156.	0.6	3

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73	Numerical evaluation of Appell's hypergeometric function. Computer Physics Communications, 2001, 138, 29-43.	3.0	32
74	The hyperbolic hypergeometric functions. Journal of Mathematical Physics, 2001, 42, 4971-4983.	0.5	1
75	Two-dimensional approximate wave function for the three-body Coulomb problem. Physical Review A, 2000, 61, .	1.0	1
76	Electron-ion correlation effects in ion-atom single ionization. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, L467-L473.	0.6	23
77	Analytic properties of three-body continuum Coulomb wave functions. Physical Review A, 2000, 62, .	1.0	7
78	Closed-form solutions for a noncentral parabolic potential. Physical Review A, 1999, 60, 284-289.	1.0	4
79	Multivariable hypergeometric functions for ion-atom collisions. Nuclear Instruments & Methods in Physics Research B, 1999, 154, 32-40.	0.6	5
80	Final-state $ 2\rangle$ wave function in ion-helium collisions. Physical Review A, 1998, 58, 2926-2934.	1.0	15
81	Separable wave equation for three Coulomb interacting particles. Physical Review A, 1998, 57, 1018-1024.	1.0	19
82	Theory with correlations for ionization in ion-atom collisions. Physical Review A, 1998, 57, 2223-2226.	1.0	7
83	Correlated continuum wave functions for three particles with Coulomb interactions. Physical Review A, 1997, 55, 2809-2820.	1.0	56
84	Approximate analytical solution for two electrons in the continuum. Physical Review A, 1997, 55, 3518-3525.	1.0	24
85	Multivariable hypergeometric solutions for three charged particles. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, L265-L271.	0.6	24
86	Hypergeometric integrals arising in atomic collisions physics. Journal of Mathematical Physics, 1997, 38, 6603-6612.	0.5	22
87	Double photoionization of helium: A new correlated double continuum wave function. Nuclear Instruments & Methods in Physics Research B, 1997, 132, 259-263.	0.6	1
88	Triply differential cross section for ionization in ion-atom collisions. Physical Review A, 1996, 54, 439-443.	1.0	11
89	Parametric analysis of the soft electron emission in ion-helium collisions. Nuclear Instruments & Methods in Physics Research B, 1994, 86, 140-142.	0.6	0