

Santos B Yuste

List of Publications by Year in descending order

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126
papers

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citations

168829

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h-index

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131
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docs citations

131
times ranked

1987
citing authors

#	ARTICLE	IF	CITATIONS
1	First-encounter time of two diffusing particles in two- and three-dimensional confinement. <i>Physical Review E</i> , 2022, 105, 044119.	0.8	2
2	Pseudo-two-dimensional dynamics in a system of macroscopic rolling spheres. <i>Physical Review E</i> , 2021, 103, 042903.	0.8	7
3	Structural properties of additive binary hard-sphere mixtures. II. Asymptotic behavior and structural crossovers. <i>Physical Review E</i> , 2021, 104, 024128.	0.8	3
4	Structural properties of additive binary hard-sphere mixtures. III. Direct correlation functions. <i>Physical Review E</i> , 2021, 104, 054142.	0.8	1
5	Structural and thermodynamic properties of hard-sphere fluids. <i>Journal of Chemical Physics</i> , 2020, 153, 120901.	1.2	25
6	Reaction-diffusion and reaction-subdiffusion equations on arbitrarily evolving domains. <i>Physical Review E</i> , 2020, 102, 032111.	0.8	12
7	First-encounter time of two diffusing particles in confinement. <i>Physical Review E</i> , 2020, 102, 032118.	0.8	15
8	Continuous time random walk in a velocity field: role of domain growth, Galilei-invariant advection-diffusion, and kinetics of particle mixing. <i>New Journal of Physics</i> , 2020, 22, 073048.	1.2	13
9	Structural properties of additive binary hard-sphere mixtures. <i>Physical Review E</i> , 2020, 101, 012117.	0.8	7
10	Equation of State of Four- and Five-Dimensional Hard-Hypersphere Mixtures. <i>Entropy</i> , 2020, 22, 469.	1.1	4
11	Standard and fractional Ornstein-Uhlenbeck process on a growing domain. <i>Physical Review E</i> , 2019, 100, 012142.	0.8	8
12	First-Passage Processes and Encounter-Controlled Reactions in Growing Domains. , 2019, , 409-433.		1
13	Continuous-time random walks and Fokker-Planck equation in expanding media. <i>Physical Review E</i> , 2018, 98, .	0.8	14
14	Encounter-controlled coalescence and annihilation on a one-dimensional growing domain. <i>Physical Review E</i> , 2018, 98, .	0.8	10
15	Reactionâ€“Diffusion Kinetics in Growing Domains. <i>Handbook of Statistics</i> , 2018, 39, 131-151.	0.4	5
16	Structural properties of the Jagla fluid. <i>Physical Review E</i> , 2018, 98, 012138.	0.8	12
17	Virial coefficients, equation of state, and demixing of binary asymmetric nonadditive hard-disk mixtures. <i>Journal of Chemical Physics</i> , 2017, 147, 164502.	1.2	4
18	Continuous-time random-walk model for anomalous diffusion in expanding media. <i>Physical Review E</i> , 2017, 96, 032117.	0.8	42

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19	Equation of state of polydisperse hard-disk mixtures in the high-density regime. <i>Physical Review E</i> , 2017, 96, 062603.	0.8	16
20	Numerical matrix method for quantum periodic potentials. <i>American Journal of Physics</i> , 2016, 84, 426-433.	0.3	12
21	Theoretical approaches to the structural properties of the square-shoulder fluid. <i>Molecular Physics</i> , 2016, 114, 2382-2390.	0.8	7
22	Diffusion in an expanding medium: Fokker-Planck equation, Green's function, and first-passage properties. <i>Physical Review E</i> , 2016, 94, 032118.	0.8	24
23	Anomalous diffusion and dynamics of fluorescence recovery after photobleaching in the random-comb model. <i>Physical Review E</i> , 2016, 94, 012118.	0.8	13
24	Fast, accurate and robust adaptive finite difference methods for fractional diffusion equations. <i>Numerical Algorithms</i> , 2016, 71, 207-228.	1.1	33
25	Optimal search strategies of space-time coupled random walkers with finite lifetimes. <i>Physical Review E</i> , 2015, 91, 052115.	0.8	29
26	Virial coefficients and demixing in the Asakura-Oosawa model. <i>Journal of Chemical Physics</i> , 2015, 142, 014902.	1.2	7
27	Arrival Statistics and Exploration Properties of Mortal Walkers. , 2014, , 1-20.		3
28	Simple effective rule to estimate the jamming packing fraction of polydisperse hard spheres. <i>Physical Review E</i> , 2014, 89, 040302.	0.8	34
29	Analysis of Fractional Dynamic Systems. <i>Scientific World Journal</i> , The, 2014, 2014, 1-2.	0.8	0
30	A reaction-subdiffusion model of fluorescence recovery after photobleaching (FRAP). <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014, 2014, P11014.	0.9	11
31	Structural properties of fluids interacting via piece-wise constant potentials with a hard core. <i>Journal of Chemical Physics</i> , 2013, 139, 074505.	1.2	13
32	A finite difference method with non-uniform timesteps for fractional diffusion and diffusion-wave equations. <i>European Physical Journal: Special Topics</i> , 2013, 222, 1987-1998.	1.2	37
33	Exploration and Trapping of Mortal Random Walkers. <i>Physical Review Letters</i> , 2013, 110, 220603.	2.9	60
34	Evanescence continuous-time random walks. <i>Physical Review E</i> , 2013, 88, 062110.	0.8	24
35	Elucidating the Role of Subdiffusion and Evanescence in the Target Problem: Some Recent Results. <i>Mathematical Modelling of Natural Phenomena</i> , 2013, 8, 100-113.	0.9	9
36	Fourth virial coefficients of asymmetric nonadditive hard-disk mixtures. <i>Journal of Chemical Physics</i> , 2012, 136, 184505.	1.2	5

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37	Survival probability of an immobile target in a sea of evanescent diffusive or subdiffusive traps: A fractional equation approach. <i>Physical Review E</i> , 2012, 86, 061120.	0.8	30
38	A finite difference method with non-uniform timesteps for fractional diffusion equations. <i>Computer Physics Communications</i> , 2012, 183, 2594-2600.	3.0	94
39	Fractional calculus and morphogen gradient formation. , 2012, , .		0
40	Structure of the square-shoulder fluid. <i>Molecular Physics</i> , 2011, 109, 987-995.	0.8	20
41	On a novel iterative method to compute polynomial approximations to Bessel functions of the first kind and its connection to the solution of fractional diffusion/diffusion-wave problems. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2011, 44, 075203.	0.7	0
42	Communication: Inferring the equation of state of a metastable hard-sphere fluid from the equation of state of a hard-sphere mixture at high densities. <i>Journal of Chemical Physics</i> , 2011, 135, 181102.	1.2	11
43	Asymptotic solutions of decoupled continuous-time random walks with superheavy-tailed waiting time and heavy-tailed jump length distributions. <i>Physical Review E</i> , 2011, 84, 061143.	0.8	20
44	An Explicit Difference Method for Solving Fractional Diffusion and Diffusion-Wave Equations in the Caputo Form. <i>Journal of Computational and Nonlinear Dynamics</i> , 2011, 6, .	0.7	58
45	An Explicit Numerical Method for the Fractional Cable Equation. <i>International Journal of Differential Equations</i> , 2011, 2011, 1-12.	0.3	14
46	Reactions in Subdiffusive Media and Associated Fractional Equations. , 2011, , 77-106.		5
47	Divergent series and memory of the initial condition in the long-time solution of some anomalous diffusion problems. <i>Physical Review E</i> , 2010, 81, 021105.	0.8	6
48	Virial coefficients, thermodynamic properties, and fluid-fluid transition of nonadditive hard-sphere mixtures. <i>Journal of Chemical Physics</i> , 2010, 132, 204506.	1.2	21
49	Reaction-subdiffusion model of morphogen gradient formation. <i>Physical Review E</i> , 2010, 82, 061123.	0.8	66
50	Reaction-subdiffusion and reaction-superdiffusion equations for evanescent particles performing continuous-time random walks. <i>Physical Review E</i> , 2010, 81, 031115.	0.8	72
51	Survival probability of a subdiffusive particle in ad-dimensional sea of mobile traps. <i>Physical Review E</i> , 2009, 80, 061121.	0.8	13
52	Mean field model of coagulation and annihilation reactions in a medium of quenched traps: Subdiffusion. <i>Physical Review E</i> , 2009, 79, 051113.	0.8	9
53	Coagulation reactions in low dimensions: Revisiting subdiffusiveA+Areactions in one dimension. <i>Physical Review E</i> , 2009, 80, 051114.	0.8	4
54	On an Explicit Difference Method for Fractional Diffusion and Diffusion-Wave Equations. , 2009, , .		0

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55	Contact values for disparate-size hard-sphere mixtures. <i>Molecular Physics</i> , 2009, 107, 685-691.	0.8	7
56	On three explicit difference schemes for fractional diffusion and diffusion-wave equations. <i>Physica Scripta</i> , 2009, T136, 014025.	1.2	24
57	Alternative Approaches to the Equilibrium Properties of Hard-Sphere Liquids. <i>Lecture Notes in Physics</i> , 2008, , 183-245.	0.3	26
58	Simple equation of state for hard disks on the hyperbolic plane. <i>Journal of Chemical Physics</i> , 2008, 129, 116101.	1.2	6
59	Depletion potential in the infinite dilution limit. <i>Journal of Chemical Physics</i> , 2008, 128, 134507.	1.2	16
60	Number of distinct sites visited by a subdiffusive random walker. <i>Physical Review E</i> , 2008, 77, 032101.	0.8	14
61	Survival probability of a particle in a sea of mobile traps: A tale of tails. <i>Physical Review E</i> , 2008, 78, 021105.	0.8	50
62	Subdiffusive target problem: Survival probability. <i>Physical Review E</i> , 2007, 76, 051114.	0.8	46
63	Low-temperature and high-temperature approximations for penetrable-sphere fluids: Comparison with Monte Carlo simulations and integral equation theories. <i>Physical Review E</i> , 2007, 76, 021504.	0.8	23
64	Multicomponent fluid of hard spheres near a wall. <i>Physical Review E</i> , 2007, 75, 061201.	0.8	14
65	Simulations for trapping reactions with subdiffusive traps and subdiffusive particles. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 065120.	0.7	7
66	On the radial distribution function of a hard-sphere fluid. <i>Journal of Chemical Physics</i> , 2006, 124, 236102.	1.2	14
67	Test of a universality ansatz for the contact values of the radial distribution functions of hard-sphere mixtures near a hard wall. <i>Molecular Physics</i> , 2006, 104, 3461-3467.	0.8	8
68	Weighted average finite difference methods for fractional diffusion equations. <i>Journal of Computational Physics</i> , 2006, 216, 264-274.	1.9	303
69	Target problem with evanescent subdiffusive traps. <i>Physical Review E</i> , 2006, 74, 046119.	0.8	22
70	How "sticky" are short-range square-well fluids?. <i>Journal of Chemical Physics</i> , 2006, 125, 074507.	1.2	22
71	Pair correlation function of short-ranged square-well fluids. <i>Journal of Chemical Physics</i> , 2005, 122, 084510.	1.2	54
72	Equation of state of nonadditive d-dimensional hard-sphere mixtures. <i>Journal of Chemical Physics</i> , 2005, 122, 024514.	1.2	37

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73	Trapping reactions with subdiffusive traps and particles characterized by different anomalous diffusion exponents. <i>Physical Review E</i> , 2005, 72, 061103.	0.8	34
74	<title>Trapping reactions with subdiffusive traps and particles (Invited Paper)</title>. , 2005, 5845, 27.		4
75	An Explicit Finite Difference Method and a New von Neumann-Type Stability Analysis for Fractional Diffusion Equations. <i>SIAM Journal on Numerical Analysis</i> , 2005, 42, 1862-1874.	1.1	493
76	Contact values of the particle-particle and wall-particle correlation functions in a hard-sphere polydisperse fluid. <i>Journal of Chemical Physics</i> , 2005, 123, 234512.	1.2	21
77	Average shape of fluctuations for subdiffusive walks. <i>Physical Review E</i> , 2004, 69, 031104.	0.8	2
78	Reaction front in an $A+B \rightarrow C$ reaction-subdiffusion process. <i>Physical Review E</i> , 2004, 69, 036126.	0.8	264
79	Some exact results for the trapping of subdiffusive particles in one dimension. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 336, 334-346.	1.2	31
80	Comment on "Mean first passage time for anomalous diffusion". <i>Physical Review E</i> , 2004, 69, 033101; discussion 033102.	0.8	28
81	Properties of the reaction front in a reaction-subdiffusion process. , 2004, , .		4
82	Order statistics of Rosenstock's trapping problem in disordered media. <i>Physical Review E</i> , 2003, 68, 036134.	0.8	5
83	Survival probability and order statistics of diffusion on disordered media. <i>Physical Review E</i> , 2002, 66, 011110.	0.8	5
84	Equation of state of additive hard-disk fluid mixtures: A critical analysis of two recent proposals. <i>Physical Review E</i> , 2002, 66, 031202.	0.8	7
85	Structure of ternary additive hard-sphere fluid mixtures. <i>Physical Review E</i> , 2002, 66, 061203.	0.8	11
86	Contact values of the radial distribution functions of additive hard-sphere mixtures in d dimensions: A new proposal. <i>Journal of Chemical Physics</i> , 2002, 117, 5785-5793.	1.2	49
87	Subdiffusion-limited reactions. <i>Chemical Physics</i> , 2002, 284, 169-180.	0.9	97
88	Virial coefficients and equations of state for mixtures of hard discs, hard spheres and hard hyperspheres. <i>Molecular Physics</i> , 2001, 99, 1959-1972.	0.8	25
89	Order statistics for d-dimensional diffusion processes. <i>Physical Review E</i> , 2001, 64, 052102.	0.8	26
90	Multiparticle trapping problem in the half-line. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001, 297, 321-336.	1.2	12

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91	Subdiffusion-Limited A+A Reactions. Physical Review Letters, 2001, 87, 118301.	2.9	125
92	Order statistics of the trapping problem. Physical Review E, 2001, 64, 061107.	0.8	12
93	Demixing in binary mixtures of hard hyperspheres. Europhysics Letters, 2000, 52, 158-164.	0.7	21
94	Diffusion of a set of random walkers in Euclidean media. First passage times. Journal of Physics A, 2000, 33, 507-512.	1.6	14
95	Territory covered by N random walkers on fractal media: The Sierpinski gasket and the percolation aggregate. Physical Review E, 2000, 63, 011105.	0.8	20
96	Number of distinct sites visited by N random walkers on a Euclidean lattice. Physical Review E, 2000, 61, 2340-2347.	0.8	22
97	Direct correlation functions and bridge functions in additive hard-sphere mixtures. Molecular Physics, 2000, 98, 439-446.	0.8	10
98	Territory covered by N random walkers. Physical Review E, 1999, 60, R3459-R3462.	0.8	23
99	PRELIMINARY COMMUNICATION Equation of state of a multicomponent d-dimensional hard-sphere fluid. Molecular Physics, 1999, 96, 1-5.	0.8	56
100	Radial distribution functions for a multicomponent system of sticky hard spheres. Journal of Chemical Physics, 1998, 109, 6814-6819.	1.2	26
101	Structure of multi-component hard-sphere mixtures. Journal of Chemical Physics, 1998, 108, 3683-3693.	1.2	52
102	Demonstration of a conjecture for random walks in d-dimensional Sierpinski fractals. Journal of Physics A, 1998, 31, 6589-6593.	1.6	3
103	Is there a glass transition for dense hard-sphere systems?. Journal of Chemical Physics, 1998, 108, 1290-1291.	1.2	24
104	Short-time regime propagator in fractals. Physical Review E, 1998, 57, 5160-5167.	0.8	16
105	Order statistics of diffusion on fractals. Physical Review E, 1998, 57, 6327-6334.	0.8	14
106	Escape Times of f Random Walkers from a Fractal Labyrinth. Physical Review Letters, 1997, 79, 3565-3568.	2.9	23
107	Order statistics for first passage times in one-dimensional diffusion processes. Journal of Statistical Physics, 1996, 85, 501-512.	0.5	43
108	Structure of hard-sphere metastable fluids. Physical Review E, 1996, 53, 4820-4826.	0.8	60

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109	First-passage time, survival probability and propagator on deterministic fractals. Journal of Physics A, 1995, 28, 7027-7038.	1.6	18
110	An accurate and simple equation of state for hard disks. Journal of Chemical Physics, 1995, 103, 4622-4625.	1.2	99
111	A model for the structure of square-well fluids. Journal of Chemical Physics, 1994, 101, 2355-2364.	1.2	50
112	Radial distribution function for sticky hard-core fluids. Journal of Statistical Physics, 1993, 72, 703-720.	0.5	34
113	Energy levels of the quartic double well using a phase-integral method. Physical Review A, 1993, 48, 3478-3485.	1.0	20
114	Sticky hard spheres beyond the Percus-Yevick approximation. Physical Review E, 1993, 48, 4599-4604.	0.8	27
115	A heuristic radial distribution function for hard disks. Journal of Chemical Physics, 1993, 99, 2020-2023.	1.2	23
116	Generalized Bohr-Sommerfeld rule for quartic oscillators. Physical Review A, 1992, 46, 5367-5374.	1.0	3
117	“Cubication” of non-linear oscillators using the principle of harmonic balance. International Journal of Non-Linear Mechanics, 1992, 27, 347-356.	1.4	37
118	Quasi-pure-cubic oscillators studied using a krylov-Bogoliubov method. Journal of Sound and Vibration, 1992, 158, 267-275.	2.1	19
119	Radial distribution function for hard spheres. Physical Review A, 1991, 43, 5418-5423.	1.0	101
120	On Duffing oscillators with slowly varying parameters. International Journal of Non-Linear Mechanics, 1991, 26, 671-677.	1.4	31
121	Improvement of a Krylov-Bogoliubov method that uses Jacobi elliptic functions. Journal of Sound and Vibration, 1990, 139, 151-163.	2.1	80
122	A generalized Galerkin method for cubic oscillators. Journal of Sound and Vibration, 1989, 130, 332-336.	2.1	8
123	A weighted mean-square method of “cubication” for non-linear oscillators. Journal of Sound and Vibration, 1989, 134, 423-433.	2.1	20
124	The Rayleigh method with Jacobi elliptic functions. Journal of Sound and Vibration, 1989, 133, 180-184.	2.1	2
125	Extension and improvement to the Krylov-Bogoliubov methods using elliptic functions. International Journal of Control, 1989, 49, 1127-1141.	1.2	46
126	Generalized fourier series for the study of limit cycles. Journal of Sound and Vibration, 1988, 125, 13-21.	2.1	36