Leonardo Dagdug

List of Publications by Year
in descending order

105 papers	1,307 citations	331259 21 h-index	414034 32 g-index
108 all docs	108 docs citations	108 times ranked	619 citing authors

#	Article	IF	Citations
1	Projection of two-dimensional diffusion in a curved midline and narrow varying width channel onto the longitudinal dimension. Journal of Chemical Physics, 2012, 137, 024107.	1.2	70
2	Communications: Drift and diffusion in a tube of periodically varying diameter. Driving force induced intermittency. Journal of Chemical Physics, 2010, 132, 221104.	1.2	67
3	Effects of anisotropic optical properties on photon migration in structured tissues. Physics in Medicine and Biology, 2003, 48, 1361-1370.	1.6	50
4	Diffusion in linear porous media with periodic entropy barriers: A tube formed by contacting spheres. Journal of Chemical Physics, 2008, 129, 046101.	1.2	47
5	Unbiased diffusion in tubes with corrugated walls. Journal of Chemical Physics, 2010, 133, 034707.	1.2	45
6	Transient diffusion in a tube with dead ends. Journal of Chemical Physics, 2007, 127, 224712.	1.2	41
7	Diffusion in the presence of cylindrical obstacles arranged in a square lattice analyzed with generalized Fick-Jacobs equation. Journal of Chemical Physics, 2012, 136, 204106.	1.2	40
8	Discriminating between Anomalous Diffusion and Transient Behavior in Microheterogeneous Environments. Biophysical Journal, 2014, 106, L09-L11.	0.2	40
9	Manifestly covariant JÃ¼ttner distribution and equipartition theorem. Physical Review E, 2010, 81, 021126.	0.8	35
10	Mean Direct-Transit and Looping Times as Functions of the Potential Shape. Journal of Physical Chemistry B, 2017, 121, 5455-5460.	1.2	34
11	-Noise structures in Pollocks's drip paintings. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 281-295.	1.2	33
12	Diffusion in two-dimensional conical varying width channels: Comparison of analytical and numerical results. Journal of Chemical Physics, 2012, 137, 174103.	1.2	33
13	Communication: Turnover behavior of effective mobility in a tube with periodic entropy potential. Journal of Chemical Physics, 2011, 134, 101102.	1.2	32
14	Effective diffusion of confined active Brownian swimmers. Physical Review E, 2014, 90, 062711.	0.8	32
15	Diffusion in periodic two-dimensional channels formed by overlapping circles: Comparison of analytical and numerical results. Journal of Chemical Physics, 2011, 135, 224101.	1.2	30
16	Biased diffusion in tubes formed by spherical compartments. Journal of Chemical Physics, 2010, 133, 134102.	1.2	29
17	Diffusion in narrow channels on curved manifolds. Journal of Chemical Physics, 2013, 139, 214115.	1.2	29
18	Equilibration in two chambers connected by a capillary. Journal of Chemical Physics, 2003, 119, 12473-12478.	1.2	28

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19	Boundary homogenization for a sphere with an absorbing cap of arbitrary size. Journal of Chemical Physics, 2016, 145, 214101.	1.2	28
20	Range of applicability of modified Fick-Jacobs equation in two dimensions. Journal of Chemical Physics, 2015, 143, 164102.	1.2	27
21	Force-dependent mobility and entropic rectification in tubes of periodically varying geometry. Journal of Chemical Physics, 2012, 136, 214110.	1.2	25
22	Long-term memory dynamics of continental and oceanic monthly temperatures in the recent 125 years. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 3629-3640.	1.2	23
23	Analytical treatment of biased diffusion in tubes with periodic dead ends. Journal of Chemical Physics, 2011, 134, 124109.	1.2	21
24	On the covariant description of diffusion in two-dimensional confined environments. Journal of Chemical Physics, 2015, 142, 064105.	1.2	20
25	Unbiased diffusion in two-dimensional channels with corrugated walls. Journal of Chemical Physics, 2016, 144, 084106.	1.2	19
26	From normal to anomalous diffusion in comb-like structures in three dimensions. Journal of Chemical Physics, 2014, 141, 054907.	1.2	18
27	Drift and diffusion in periodic potentials: Upstream and downstream step times are distributed identically. Journal of Chemical Physics, 2009, 131, 056101.	1.2	17
28	Particle size effect on diffusion in tubes with dead ends: Nonmonotonic size dependence of effective diffusion constant. Journal of Chemical Physics, 2008, 129, 184706.	1.2	16
29	Biased diffusion in three-dimensional comb-like structures. Journal of Chemical Physics, 2015, 142, 134101.	1.2	16
30	Diffusion-limited binding to a site on the wall of a membrane channel. Journal of Chemical Physics, 2006, 125, 244705.	1.2	15
31	Correlations in a Mozart's music score (K-73x) with palindromic and upside-down structure. Physica A: Statistical Mechanics and Its Applications, 2007, 383, 570-584.	1.2	15
32	Diffusion-controlled reactions with a binding site hidden in a channel. Journal of Chemical Physics, 2003, 118, 2367-2373.	1.2	14
33	Trapping by Clusters of Channels, Receptors, and Transporters: Quantitative Description. Biophysical Journal, 2014, 106, 500-509.	0.2	14
34	A new approach to the problem of bulk-mediated surface diffusion. Journal of Chemical Physics, 2015, 143, 084103.	1.2	14
35	Communication: Clusters of absorbing disks on a reflecting wall: Competition for diffusing particles. Journal of Chemical Physics, 2012, 136, 211102.	1.2	12
36	First passage, looping, and direct transition in expanding and narrowing tubes: Effects of the entropy potential. Journal of Chemical Physics, 2017, 147, 134104.	1.2	12

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37	Trapping of diffusing particles by striped cylindrical surfaces. Boundary homogenization approach. Journal of Chemical Physics, 2015, 142, 234902.	1.2	11
38	Unbiased diffusion of Brownian particles in a helical tube. Journal of Chemical Physics, 2018, 148, 214106.	1.2	11
39	Unbiased Diffusion to Escape through Small Windows: Assessing the Applicability of the Reduction to Effective One-Dimension Description in a Spherical Cavity. Journal of Modern Physics, 2011, 02, 284-288.	0.3	11
40	On the description of Brownian particles in confinement on a non-Cartesian coordinates basis. Journal of Chemical Physics, 2016, 145, 074105.	1.2	10
41	Effects of curved midline and varying width on the description of the effective diffusivity of Brownian particles. Journal of Physics Condensed Matter, 2018, 30, 194001.	0.7	10
42	Exact Solutions for Distributions of First-Passage, Direct-Transit, and Looping Times in Symmetric Cusp Potential Barriers and Wells. Journal of Physical Chemistry B, 2019, 123, 3786-3796.	1.2	10
43	Time-correlations in marathon arrival sequences. Physica A: Statistical Mechanics and Its Applications, 2007, 380, 447-454.	1.2	9
44	Asymmetric diffusion in heterogeneous media. Physica A: Statistical Mechanics and Its Applications, 2014, 395, 193-199.	1.2	9
45	Asymmetric Brownian transport in a family of corrugated two-dimensional channels. Physica A: Statistical Mechanics and Its Applications, 2014, 410, 319-326.	1.2	8
46	Bulk-mediated surface transport in the presence of bias. Journal of Chemical Physics, 2017, 147, 014103.	1.2	8
47	On microstates counting in many body polymer quantum systems. , 2011, , .		7
48	Effect of binding on escape from cavity through narrow tunnel. Journal of Chemical Physics, 2012, 136, 124110.	1.2	7
49	Diffusion coefficients for two-dimensional narrow asymmetric channels embedded on flat and curved surfaces. European Physical Journal: Special Topics, 2014, 223, 3045-3062.	1.2	7
50	Steady-state flux of diffusing particles to a rough boundary formed by absorbing spikes periodically protruding from a reflecting base. Journal of Chemical Physics, 2019, 150, 194109.	1.2	7
51	Two-dimensional diffusion biased by a transverse gravitational force in an asymmetric channel: Reduction to an effective one-dimensional description. Physical Review E, 2021, 104, 044118.	0.8	7
52	Number of distinct sites visited by a random walker trapped by an absorbing boundary. Physical Review E, 2002, 66, 012901.	0.8	6
53	Thermodynamic and kinetic characterization of the association of triosephosphate isomerase: The role of diffusion. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2007, 1774, 985-994.	1.1	6
54	Trapping of diffusing particles by clusters of absorbing disks on a reflecting wall with disk centers on sites of a square lattice. Journal of Chemical Physics, 2013, 138, 064105.	1.2	6

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55	Note: Boundary homogenization for a circle with periodic absorbing arcs. Exact expression for the effective trapping rate. Journal of Chemical Physics, 2015, 143, 226101.	1.2	6
56	A new insight into diffusional escape from a biased cylindrical trap. Journal of Chemical Physics, 2017, 147, 104103.	1.2	6
57	Biased diffusion in periodic potentials: Three types of force dependence of effective diffusivity and generalized Lifson-Jackson formula. Journal of Chemical Physics, 2019, 151, 131102.	1.2	6
58	Peculiarities of the Mean Transition Path Time Dependence on the Barrier Height in Entropy Potentials. Journal of Physical Chemistry B, 2020, 124, 2305-2310.	1.2	6
59	Evaluating diffusion resistance of a constriction in a membrane channel by the method of boundary homogenization. Physical Review E, 2021, 103, 012408.	0.8	6
60	Particle lifetime in cylindrical cavity with absorbing spot on the wall: Going beyond the narrow escape problem. Journal of Chemical Physics, 2012, 137, 234108.	1.2	5
61	Trapping of diffusing particles by spiky absorbers. Journal of Chemical Physics, 2018, 148, 084103.	1.2	5
62	Numerical study assessing the applicability of the reduction to effective one-dimensional description of diffusion in a hemispherical shaped tube. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 987-991.	1.0	4
63	Particle transport across a channel via an oscillating potential. Physical Review E, 2017, 96, 052401.	0.8	4
64	Two-site versus continuum diffusion model of blocker dynamics in a membrane channel: Comparative analysis of escape kinetics. Journal of Chemical Physics, 2019, 151, 054113.	1.2	4
65	Trapping of particles diffusing in two dimensions by a hidden binding site. Physical Review E, 2021, 103, 012135.	0.8	4
66	Monte Carlo simulations of increased/decreased scattering inclusions inside a turbid slab. Physics in Medicine and Biology, 2005, 50, 5573-5581.	1.6	3
67	Contribution of floppy modes to configurational and excess entropy in chalcogenide glasses. Journal of Non-Crystalline Solids, 2006, 352, 5399-5402.	1.5	3
68	Cycles in the scaling properties of length-of-day variations. Journal of Geodynamics, 2010, 49, 105-110.	0.7	3
69	Aris-Taylor dispersion in tubes with dead ends. Journal of Chemical Physics, 2014, 141, 024705.	1.2	3
70	Asymmetric transport of passive tracers across heterogeneous porous media. Physica A: Statistical Mechanics and Its Applications, 2014, 413, 544-553.	1.2	3
71	Asymmetrical diffusion across a porous medium-homogeneous fluid interface. Physica A: Statistical Mechanics and Its Applications, 2014, 407, 24-32.	1.2	3
72	Note: Effect of a small surface defect on the Smoluchowski rate constant and capacitance of a spherical capacitor. Journal of Chemical Physics, 2017, 147, 106101.	1.2	3

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73	Trapping of diffusing particles by periodic absorbing rings on a cylindrical tube. Journal of Chemical Physics, 2019, 150, 206101.	1.2	3
74	Trapping of diffusing particles by small absorbers localized in a spherical region. Journal of Chemical Physics, 2019, 150, 064107.	1.2	3
75	First-passage, transition path, and looping times in conical varying-width channels: Comparison of analytical and numerical results. AIP Advances, 2020, 10, .	0.6	3
76	Effective diffusivity of a Brownian particle in a two-dimensional periodic channel of abruptly alternating width. Physical Review E, 2021, 103, 062106.	0.8	3
77	Smoluchowski-like theory for trapping kinetics in a slab. Physica A: Statistical Mechanics and Its Applications, 2003, 318, 341-346.	1.2	2
78	Kinetics of ligand equilibration between tubular and vesicular parts of the endosome. Physical Review E, 2004, 69, 012902.	0.8	2
79	Diffusion in a porous medium with dead ends: An analysis by methods of the theory of diffusion-controlled reactions. Russian Journal of Physical Chemistry A, 2008, 82, 2039-2044.	0.1	2
80	Enhanced diffusion in conic channels by means of geometric stochastic resonance. Journal of Chemical Physics, 2011, 135, 174102.	1.2	2
81	Diffusion in one-dimensional channels with zero-mean time-periodic tilting forces. Journal of Chemical Physics, 2012, 136, 114103.	1.2	2
82	Thermal equilibrium in Einstein's elevator. Physical Review E, 2013, 87, 052121.	0.8	2
83	Vanishing condition for the heat flux and slow evolution of a spherically fluid distribution. Journal of Physics: Conference Series, 2015, 582, 012044.	0.3	2
84	Unbiased Diffusion through a Linear Porous Media with Periodic Entropy Barriers: A Tube Formed by Contacting Ellipses. Journal of Chemistry, 2015, 2015, 1-10.	0.9	2
85	Trapping of diffusing particles by short absorbing spikes periodically protruding from reflecting base. Journal of Chemical Physics, 2018, 149, 044106.	1.2	2
86	Unbiased Diffusion to Escape Complex Geometries: Is Reduction to Effective One-Dimensional Description Adequate to Assess Narrow Escape Times?. Applied Mathematics, 2014, 05, 1218-1225.	0.1	2
87	New Trends in Statistical Physics. , 2010, , .		2
88	Suggested parameter to estimate the region probed by photons in laser-based measurements. Journal of Modern Optics, 2004, 51, 469-478.	0.6	1
89	Nonlinear Analysis of Time Series in Genome-Wide Linkage Disequilibrium Data. AIP Conference Proceedings, 2008, , .	0.3	1
90	Effects of anisotropy of the turbid media on the photon penetration depth. Journal of Modern Optics, 2010, 57, 2048-2053.	0.6	1

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91	Effective one-dimensional diffusion on curved surfaces: Catenoid and pseudosphere. AIP Conference Proceedings, 2014, , .	0.3	1
92	Vanishing condition for the heat flux of a relativistic fluid in a moving frame. Journal of Physics: Conference Series, 2014, 545, 012012.	0.3	1
93	Absorptive effects on a parameter used to characterize the region of tissue visited by photons in continuous wave measurements. Optics Communications, 2003, 226, 149-154.	1.0	0
94	On the Fokker-Planck Equation for the Relativistic Lorentz Gas. , 2010, , 275-291.		0
95	Relativistic Momentum and Manifestly Covariant Equipartition Theorem Revisited. , 2010, , .		0
96	Assessing the applicability of the reduction to effective one-dimensional description of diffusion in a hemispherical shaped tube. , 2010, , .		0
97	A Brief History of the CTRW: Its Origin and Survey of Some Applications. , 2010, , .		0
98	A covariant Fokker-Planck equation for a simple gas from relativistic kinetic theory. , 2010, , .		0
99	Effective diffusivity through arrays of obstacles under zero-mean periodic driving forces. Journal of Chemical Physics, 2012, 137, 154109.	1.2	0
100	Assessing the accuracy of volume averaging effective diffusivity estimates with Brownian dynamics simulations. Chemical Engineering Science, 2012, 75, 418-423.	1.9	0
101	Projection of two-dimensional diffusion in narrow asymmetric channels onto the longitudinal direction. , 2014, , .		0
102	Note: Diffusion-limited annihilation in cavities. Journal of Chemical Physics, 2018, 148, 246101.	1.2	0
103	Solution of the Boltzmann Equation. Springer Series on Atomic, Optical, and Plasma Physics, 2009, , 25-39.	0.1	0
104	Solution of the Integral Equations. Springer Series on Atomic, Optical, and Plasma Physics, 2009, , 51-59.	0.1	0
105	The Transport Coefficients. Springer Series on Atomic, Optical, and Plasma Physics, 2009, , 61-71.	0.1	0