

Leonardo Dagdug

List of Publications by Year in descending order

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Version: 2024-02-01

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 | Evaluating diffusion resistance of a constriction in a membrane channel by the method of boundary homogenization. <i>Physical Review E</i> , 2021, 103, 012408. | 0.8 | 6 |
| 2 | Trapping of particles diffusing in two dimensions by a hidden binding site. <i>Physical Review E</i> , 2021, 103, 012135. | 0.8 | 4 |
| 3 | Effective diffusivity of a Brownian particle in a two-dimensional periodic channel of abruptly alternating width. <i>Physical Review E</i> , 2021, 103, 062106. | 0.8 | 3 |
| 4 | Two-dimensional diffusion biased by a transverse gravitational force in an asymmetric channel: Reduction to an effective one-dimensional description. <i>Physical Review E</i> , 2021, 104, 044118. | 0.8 | 7 |
| 5 | Peculiarities of the Mean Transition Path Time Dependence on the Barrier Height in Entropy Potentials. <i>Journal of Physical Chemistry B</i> , 2020, 124, 2305-2310. | 1.2 | 6 |
| 6 | First-passage, transition path, and looping times in conical varying-width channels: Comparison of analytical and numerical results. <i>AIP Advances</i> , 2020, 10, . | 0.6 | 3 |
| 7 | Two-site versus continuum diffusion model of blocker dynamics in a membrane channel: Comparative analysis of escape kinetics. <i>Journal of Chemical Physics</i> , 2019, 151, 054113. | 1.2 | 4 |
| 8 | Steady-state flux of diffusing particles to a rough boundary formed by absorbing spikes periodically protruding from a reflecting base. <i>Journal of Chemical Physics</i> , 2019, 150, 194109. | 1.2 | 7 |
| 9 | Trapping of diffusing particles by periodic absorbing rings on a cylindrical tube. <i>Journal of Chemical Physics</i> , 2019, 150, 206101. | 1.2 | 3 |
| 10 | Exact Solutions for Distributions of First-Passage, Direct-Transit, and Looping Times in Symmetric Cusp Potential Barriers and Wells. <i>Journal of Physical Chemistry B</i> , 2019, 123, 3786-3796. | 1.2 | 10 |
| 11 | Trapping of diffusing particles by small absorbers localized in a spherical region. <i>Journal of Chemical Physics</i> , 2019, 150, 064107. | 1.2 | 3 |
| 12 | Biased diffusion in periodic potentials: Three types of force dependence of effective diffusivity and generalized Lifson-Jackson formula. <i>Journal of Chemical Physics</i> , 2019, 151, 131102. | 1.2 | 6 |
| 13 | Trapping of diffusing particles by spiky absorbers. <i>Journal of Chemical Physics</i> , 2018, 148, 084103. | 1.2 | 5 |
| 14 | Effects of curved midline and varying width on the description of the effective diffusivity of Brownian particles. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 194001. | 0.7 | 10 |
| 15 | Note: Diffusion-limited annihilation in cavities. <i>Journal of Chemical Physics</i> , 2018, 148, 246101. | 1.2 | 0 |
| 16 | Trapping of diffusing particles by short absorbing spikes periodically protruding from reflecting base. <i>Journal of Chemical Physics</i> , 2018, 149, 044106. | 1.2 | 2 |
| 17 | Unbiased diffusion of Brownian particles in a helical tube. <i>Journal of Chemical Physics</i> , 2018, 148, 214106. | 1.2 | 11 |
| 18 | Mean Direct-Transit and Looping Times as Functions of the Potential Shape. <i>Journal of Physical Chemistry B</i> , 2017, 121, 5455-5460. | 1.2 | 34 |

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|----|--|-----|-----------|
| 19 | Particle transport across a channel via an oscillating potential. <i>Physical Review E</i> , 2017, 96, 052401. | 0.8 | 4 |
| 20 | First passage, looping, and direct transition in expanding and narrowing tubes: Effects of the entropy potential. <i>Journal of Chemical Physics</i> , 2017, 147, 134104. | 1.2 | 12 |
| 21 | A new insight into diffusional escape from a biased cylindrical trap. <i>Journal of Chemical Physics</i> , 2017, 147, 104103. | 1.2 | 6 |
| 22 | Note: Effect of a small surface defect on the Smoluchowski rate constant and capacitance of a spherical capacitor. <i>Journal of Chemical Physics</i> , 2017, 147, 106101. | 1.2 | 3 |
| 23 | Bulk-mediated surface transport in the presence of bias. <i>Journal of Chemical Physics</i> , 2017, 147, 014103. | 1.2 | 8 |
| 24 | Boundary homogenization for a sphere with an absorbing cap of arbitrary size. <i>Journal of Chemical Physics</i> , 2016, 145, 214101. | 1.2 | 28 |
| 25 | Unbiased diffusion in two-dimensional channels with corrugated walls. <i>Journal of Chemical Physics</i> , 2016, 144, 084106. | 1.2 | 19 |
| 26 | On the description of Brownian particles in confinement on a non-Cartesian coordinates basis. <i>Journal of Chemical Physics</i> , 2016, 145, 074105. | 1.2 | 10 |
| 27 | Trapping of diffusing particles by striped cylindrical surfaces. Boundary homogenization approach. <i>Journal of Chemical Physics</i> , 2015, 142, 234902. | 1.2 | 11 |
| 28 | Range of applicability of modified Fick-Jacobs equation in two dimensions. <i>Journal of Chemical Physics</i> , 2015, 143, 164102. | 1.2 | 27 |
| 29 | A new approach to the problem of bulk-mediated surface diffusion. <i>Journal of Chemical Physics</i> , 2015, 143, 084103. | 1.2 | 14 |
| 30 | Note: Boundary homogenization for a circle with periodic absorbing arcs. Exact expression for the effective trapping rate. <i>Journal of Chemical Physics</i> , 2015, 143, 226101. | 1.2 | 6 |
| 31 | Vanishing condition for the heat flux and slow evolution of a spherically fluid distribution. <i>Journal of Physics: Conference Series</i> , 2015, 582, 012044. | 0.3 | 2 |
| 32 | Unbiased Diffusion through a Linear Porous Media with Periodic Entropy Barriers: A Tube Formed by Contacting Ellipses. <i>Journal of Chemistry</i> , 2015, 2015, 1-10. | 0.9 | 2 |
| 33 | On the covariant description of diffusion in two-dimensional confined environments. <i>Journal of Chemical Physics</i> , 2015, 142, 064105. | 1.2 | 20 |
| 34 | Biased diffusion in three-dimensional comb-like structures. <i>Journal of Chemical Physics</i> , 2015, 142, 134101. | 1.2 | 16 |
| 35 | Diffusion coefficients for two-dimensional narrow asymmetric channels embedded on flat and curved surfaces. <i>European Physical Journal: Special Topics</i> , 2014, 223, 3045-3062. | 1.2 | 7 |
| 36 | Effective diffusion of confined active Brownian swimmers. <i>Physical Review E</i> , 2014, 90, 062711. | 0.8 | 32 |

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|----|---|-----|-----------|
| 37 | Aris-Taylor dispersion in tubes with dead ends. <i>Journal of Chemical Physics</i> , 2014, 141, 024705. | 1.2 | 3 |
| 38 | Trapping by Clusters of Channels, Receptors, and Transporters: Quantitative Description. <i>Biophysical Journal</i> , 2014, 106, 500-509. | 0.2 | 14 |
| 39 | Discriminating between Anomalous Diffusion and Transient Behavior in Microheterogeneous Environments. <i>Biophysical Journal</i> , 2014, 106, L09-L11. | 0.2 | 40 |
| 40 | From normal to anomalous diffusion in comb-like structures in three dimensions. <i>Journal of Chemical Physics</i> , 2014, 141, 054907. | 1.2 | 18 |
| 41 | Asymmetric transport of passive tracers across heterogeneous porous media. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 413, 544-553. | 1.2 | 3 |
| 42 | Asymmetric diffusion in heterogeneous media. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 395, 193-199. | 1.2 | 9 |
| 43 | Asymmetrical diffusion across a porous medium-homogeneous fluid interface. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 407, 24-32. | 1.2 | 3 |
| 44 | Asymmetric Brownian transport in a family of corrugated two-dimensional channels. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 410, 319-326. | 1.2 | 8 |
| 45 | Effective one-dimensional diffusion on curved surfaces: Catenoid and pseudosphere. <i>AIP Conference Proceedings</i> , 2014, , . | 0.3 | 1 |
| 46 | Projection of two-dimensional diffusion in narrow asymmetric channels onto the longitudinal direction. , 2014, , . | | 0 |
| 47 | Vanishing condition for the heat flux of a relativistic fluid in a moving frame. <i>Journal of Physics: Conference Series</i> , 2014, 545, 012012. | 0.3 | 1 |
| 48 | Unbiased Diffusion to Escape Complex Geometries: Is Reduction to Effective One-Dimensional Description Adequate to Assess Narrow Escape Times?. <i>Applied Mathematics</i> , 2014, 05, 1218-1225. | 0.1 | 2 |
| 49 | Thermal equilibrium in Einstein's elevator. <i>Physical Review E</i> , 2013, 87, 052121. | 0.8 | 2 |
| 50 | Trapping of diffusing particles by clusters of absorbing disks on a reflecting wall with disk centers on sites of a square lattice. <i>Journal of Chemical Physics</i> , 2013, 138, 064105. | 1.2 | 6 |
| 51 | Diffusion in narrow channels on curved manifolds. <i>Journal of Chemical Physics</i> , 2013, 139, 214115. | 1.2 | 29 |
| 52 | Effective diffusivity through arrays of obstacles under zero-mean periodic driving forces. <i>Journal of Chemical Physics</i> , 2012, 137, 154109. | 1.2 | 0 |
| 53 | Diffusion in one-dimensional channels with zero-mean time-periodic tilting forces. <i>Journal of Chemical Physics</i> , 2012, 136, 114103. | 1.2 | 2 |
| 54 | Diffusion in the presence of cylindrical obstacles arranged in a square lattice analyzed with generalized Fick-Jacobs equation. <i>Journal of Chemical Physics</i> , 2012, 136, 204106. | 1.2 | 40 |

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|----|--|-----|-----------|
| 55 | Particle lifetime in cylindrical cavity with absorbing spot on the wall: Going beyond the narrow escape problem. <i>Journal of Chemical Physics</i> , 2012, 137, 234108. | 1.2 | 5 |
| 56 | Effect of binding on escape from cavity through narrow tunnel. <i>Journal of Chemical Physics</i> , 2012, 136, 124110. | 1.2 | 7 |
| 57 | Diffusion in two-dimensional conical varying width channels: Comparison of analytical and numerical results. <i>Journal of Chemical Physics</i> , 2012, 137, 174103. | 1.2 | 33 |
| 58 | Communication: Clusters of absorbing disks on a reflecting wall: Competition for diffusing particles. <i>Journal of Chemical Physics</i> , 2012, 136, 211102. | 1.2 | 12 |
| 59 | Projection of two-dimensional diffusion in a curved midline and narrow varying width channel onto the longitudinal dimension. <i>Journal of Chemical Physics</i> , 2012, 137, 024107. | 1.2 | 70 |
| 60 | Force-dependent mobility and entropic rectification in tubes of periodically varying geometry. <i>Journal of Chemical Physics</i> , 2012, 136, 214110. | 1.2 | 25 |
| 61 | Assessing the accuracy of volume averaging effective diffusivity estimates with Brownian dynamics simulations. <i>Chemical Engineering Science</i> , 2012, 75, 418-423. | 1.9 | 0 |
| 62 | On microstates counting in many body polymer quantum systems. , 2011, , . | | 7 |
| 63 | Diffusion in periodic two-dimensional channels formed by overlapping circles: Comparison of analytical and numerical results. <i>Journal of Chemical Physics</i> , 2011, 135, 224101. | 1.2 | 30 |
| 64 | Communication: Turnover behavior of effective mobility in a tube with periodic entropy potential. <i>Journal of Chemical Physics</i> , 2011, 134, 101102. | 1.2 | 32 |
| 65 | Analytical treatment of biased diffusion in tubes with periodic dead ends. <i>Journal of Chemical Physics</i> , 2011, 134, 124109. | 1.2 | 21 |
| 66 | Enhanced diffusion in conic channels by means of geometric stochastic resonance. <i>Journal of Chemical Physics</i> , 2011, 135, 174102. | 1.2 | 2 |
| 67 | Unbiased Diffusion to Escape through Small Windows: Assessing the Applicability of the Reduction to Effective One-Dimension Description in a Spherical Cavity. <i>Journal of Modern Physics</i> , 2011, 02, 284-288. | 0.3 | 11 |
| 68 | Numerical study assessing the applicability of the reduction to effective one-dimensional description of diffusion in a hemispherical shaped tube. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2010, 165, 987-991. | 1.0 | 4 |
| 69 | On the Fokker-Planck Equation for the Relativistic Lorentz Gas. , 2010, , 275-291. | | 0 |
| 70 | Effects of anisotropy of the turbid media on the photon penetration depth. <i>Journal of Modern Optics</i> , 2010, 57, 2048-2053. | 0.6 | 1 |
| 71 | Relativistic Momentum and Manifestly Covariant Equipartition Theorem Revisited. , 2010, , . | | 0 |
| 72 | Assessing the applicability of the reduction to effective one-dimensional description of diffusion in a hemispherical shaped tube. , 2010, , . | | 0 |

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|----|--|-----|-----------|
| 73 | A Brief History of the CTRW: Its Origin and Survey of Some Applications. , 2010, , . | | 0 |
| 74 | 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 |
| 75 | Biased diffusion in tubes formed by spherical compartments. Journal of Chemical Physics, 2010, 133, 134102. | 1.2 | 29 |
| 76 | Unbiased diffusion in tubes with corrugated walls. Journal of Chemical Physics, 2010, 133, 034707. | 1.2 | 45 |
| 77 | A covariant Fokker-Planck equation for a simple gas from relativistic kinetic theory. , 2010, , . | | 0 |
| 78 | Cycles in the scaling properties of length-of-day variations. Journal of Geodynamics, 2010, 49, 105-110. | 0.7 | 3 |
| 79 | Manifestly covariant Jüttner distribution and equipartition theorem. Physical Review E, 2010, 81, 021126. | 0.8 | 35 |
| 80 | New Trends in Statistical Physics. , 2010, , . | | 2 |
| 81 | Drift and diffusion in periodic potentials: Upstream and downstream step times are distributed identically. Journal of Chemical Physics, 2009, 131, 056101. | 1.2 | 17 |
| 82 | Solution of the Boltzmann Equation. Springer Series on Atomic, Optical, and Plasma Physics, 2009, , 25-39. | 0.1 | 0 |
| 83 | Solution of the Integral Equations. Springer Series on Atomic, Optical, and Plasma Physics, 2009, , 51-59. | 0.1 | 0 |
| 84 | The Transport Coefficients. Springer Series on Atomic, Optical, and Plasma Physics, 2009, , 61-71. | 0.1 | 0 |
| 85 | -Noise structures in Pollocks's drip paintings. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 281-295. | 1.2 | 33 |
| 86 | 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 |
| 87 | 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 |
| 88 | 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 |
| 89 | Nonlinear Analysis of Time Series in Genome-Wide Linkage Disequilibrium Data. AIP Conference Proceedings, 2008, , . | 0.3 | 1 |
| 90 | 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 |

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|-----|--|-----|-----------|
| 91 | Transient diffusion in a tube with dead ends. <i>Journal of Chemical Physics</i> , 2007, 127, 224712. | 1.2 | 41 |
| 92 | Thermodynamic and kinetic characterization of the association of triosephosphate isomerase: The role of diffusion. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2007, 1774, 985-994. | 1.1 | 6 |
| 93 | Correlations in a Mozart's music score (K-73x) with palindromic and upside-down structure. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 383, 570-584. | 1.2 | 15 |
| 94 | Time-correlations in marathon arrival sequences. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 380, 447-454. | 1.2 | 9 |
| 95 | Contribution of floppy modes to configurational and excess entropy in chalcogenide glasses. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 5399-5402. | 1.5 | 3 |
| 96 | Diffusion-limited binding to a site on the wall of a membrane channel. <i>Journal of Chemical Physics</i> , 2006, 125, 244705. | 1.2 | 15 |
| 97 | Monte Carlo simulations of increased/decreased scattering inclusions inside a turbid slab. <i>Physics in Medicine and Biology</i> , 2005, 50, 5573-5581. | 1.6 | 3 |
| 98 | Kinetics of ligand equilibration between tubular and vesicular parts of the endosome. <i>Physical Review E</i> , 2004, 69, 012902. | 0.8 | 2 |
| 99 | Suggested parameter to estimate the region probed by photons in laser-based measurements. <i>Journal of Modern Optics</i> , 2004, 51, 469-478. | 0.6 | 1 |
| 100 | Absorptive effects on a parameter used to characterize the region of tissue visited by photons in continuous wave measurements. <i>Optics Communications</i> , 2003, 226, 149-154. | 1.0 | 0 |
| 101 | Smoluchowski-like theory for trapping kinetics in a slab. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 318, 341-346. | 1.2 | 2 |
| 102 | Diffusion-controlled reactions with a binding site hidden in a channel. <i>Journal of Chemical Physics</i> , 2003, 118, 2367-2373. | 1.2 | 14 |
| 103 | Equilibration in two chambers connected by a capillary. <i>Journal of Chemical Physics</i> , 2003, 119, 12473-12478. | 1.2 | 28 |
| 104 | Effects of anisotropic optical properties on photon migration in structured tissues. <i>Physics in Medicine and Biology</i> , 2003, 48, 1361-1370. | 1.6 | 50 |
| 105 | Number of distinct sites visited by a random walker trapped by an absorbing boundary. <i>Physical Review E</i> , 2002, 66, 012901. | 0.8 | 6 |