# Udo Seifert

## List of Publications by Year in Descending Order

| 193 papers | 15,275 citations | 61 h-index | 120 g-index |
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| 198 ext. papers | 17,113 ext. citations | 4.1 avg, IF | 7.6 L-index |

| # | Paper | IF | Citations |
|---|-------|----|-----------|
| 193 | The Two Scaling Regimes of the Thermodynamic Uncertainty Relation for the KPZ-Equation. *Journal of Statistical Physics*, **2022**, 186, 1 | 1.5 | 1 |
| 192 | Phase shift in periodically driven non-equilibrium systems: its identification and a bound. *Journal of Statistical Mechanics: Theory and Experiment*, **2022**, 2022, 033207 | 1.9 | 0 |
| 191 | Operationally accessible uncertainty relations for thermodynamically consistent semi-Markov processes.. *Physical Review E*, **2022**, 105, 044113 | 2.4 | 1 |
| 190 | Optimality of nonconservative driving for finite-time processes with discrete states. *Physical Review E*, **2021**, 103, L050105 | 2.4 | 2 |
| 189 | Propagator for a driven Brownian particle in step potentials. *Journal of Physics A: Mathematical and Theoretical*, **2021**, 54, 065002 | 2 | 0 |
| 188 | Stochastic Discrete Time Crystals: Entropy Production and Subharmonic Synchronization. *Physical Review Letters*, **2021**, 126, 020603 | 7.4 | 3 |
| 187 | Quality of the thermodynamic uncertainty relation for fast and slow driving. *Journal of Physics A: Mathematical and Theoretical*, **2021**, 54, 414005 | 2 | 1 |
| 186 | Numerical Study of the Thermodynamic Uncertainty Relation for the KPZ-Equation. *Journal of Statistical Physics*, **2021**, 182, 1 | 1.5 | 3 |
| 185 | Stochastic thermodynamics of chemical reactions coupled to finite reservoirs: A case study for the Brusselator. *Journal of Chemical Physics*, **2020**, 152, 235101 | 3.9 | 3 |
| 184 | Field-Theoretic Thermodynamic Uncertainty Relation. *Journal of Statistical Physics*, **2020**, 178, 1142-1174 | 1.5 | 9 |
| 183 | Thermodynamic Uncertainty Relation for Time-Dependent Driving. *Physical Review Letters*, **2020**, 125, 260604 | 7.4 | 29 |
| 182 | Free diffusion bounds the precision of currents in underdamped dynamics. *Physical Review E*, **2020**, 102, 012120 | 2.4 | 8 |
| 181 | Exponential volume dependence of entropy-current fluctuations at first-order phase transitions in chemical reaction networks. *Physical Review E*, **2020**, 102, 022101 | 2.4 | 5 |
| 180 | Entropy and the second law for driven, or quenched, thermally isolated systems. *Physica A: Statistical Mechanics and Its Applications*, **2020**, 552, 121822 | 3.3 | 2 |
| 179 | Affinity-dependent bound on the spectrum of stochastic matrices. *Journal of Physics A: Mathematical and Theoretical*, **2019**, 52, 405002 | 2 | |
| 178 | Operationally Accessible Bounds on Fluctuations and Entropy Production in Periodically Driven Systems. *Physical Review Letters*, **2019**, 122, 230601 | 7.4 | 35 |
| 177 | Effect of a magnetic field on the thermodynamic uncertainty relation. *Physical Review E*, **2019**, 99, 042128 | 2.4 | 29 |

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|---|---|---|---|
| 176 | Interlinked GTPase cascades provide a motif for both robust switches and oscillators. *Journal of the Royal Society Interface*, **2019**, 16, 20190198 | 4.1 | 4 |
| 175 | Subharmonic oscillations in stochastic systems under periodic driving. *Physical Review E*, **2019**, 100, 012135 | 2.4 | 8 |
| 174 | Statistical Mechanics of an Elastically Pinned Membrane: Equilibrium Dynamics and Power Spectrum. *Biophysical Journal*, **2019**, 117, 542-552 | 2.9 | 2 |
| 173 | Autonomous Engines Driven by Active Matter: Energetics and Design Principles. *Physical Review X*, **2019**, 9, | 9.1 | 34 |
| 172 | A generalization of the thermodynamic uncertainty relation to periodically driven systems. *Journal of Physics A: Mathematical and Theoretical*, **2019**, 52, 02LT02 | 2 | 52 |
| 171 | Statistical Mechanics of an Elastically Pinned Membrane: Static Profile and Correlations. *Biophysical Journal*, **2019**, 116, 283-295 | 2.9 | 9 |
| 170 | From Stochastic Thermodynamics to Thermodynamic Inference. *Annual Review of Condensed Matter Physics*, **2019**, 10, 171-192 | 19.7 | 65 |
| 169 | Large deviation function for a driven underdamped particle in a periodic potential. *Physical Review E*, **2018**, 97, 022143 | 2.4 | 31 |
| 168 | Fluctuations of apparent entropy production in networks with hidden slow degrees of freedom. *Journal of Statistical Mechanics: Theory and Experiment*, **2018**, 2018, 023203 | 1.9 | 11 |
| 167 | Force-dependent diffusion coefficient of molecular Brownian ratchets. *Physical Review E*, **2018**, 98, 022401 | 2.4 | 6 |
| 166 | Phase transition in thermodynamically consistent biochemical oscillators. *Journal of Chemical Physics*, **2018**, 149, 045101 | 3.9 | 20 |
| 165 | Universal Trade-Off between Power, Efficiency, and Constancy in Steady-State Heat Engines. *Physical Review Letters*, **2018**, 120, 190602 | 7.4 | 158 |
| 164 | Stochastic thermodynamics: From principles to the cost of precision. *Physica A: Statistical Mechanics and Its Applications*, **2018**, 504, 176-191 | 3.3 | 36 |
| 163 | Entropy production of active particles and for particles in active baths. *Journal of Physics A: Mathematical and Theoretical*, **2018**, 51, 01LT01 | 2 | 50 |
| 162 | Stochastic Thermodynamics of Learning. *Physical Review Letters*, **2017**, 118, 010601 | 7.4 | 24 |
| 161 | Membrane fluctuations mediate lateral interaction between cadherin bonds. *Nature Physics*, **2017**, 13, 906-913 | 16.2 | 51 |
| 160 | Thermodynamic Bounds on the Ultra- and Infra-affinity of Hsp70 for Its Substrates. *Biophysical Journal*, **2017**, 113, 362-370 | 2.9 | 10 |
| 159 | Thermodynamic cost of external control. *New Journal of Physics*, **2017**, 19, 073021 | 2.9 | 22 |

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|---|---|---|---|
| 158 | Universal Coherence-Induced Power Losses of Quantum Heat Engines in Linear Response. *Physical Review Letters*, **2017**, 119, 170602 | 7.4 | 57 |
| 157 | Coherence of biochemical oscillations is bounded by driving force and network topology. *Physical Review E*, **2017**, 95, 062409 | 2.4 | 25 |
| 156 | Finite-time generalization of the thermodynamic uncertainty relation. *Physical Review E*, **2017**, 96, 012101 | 2.4 | 102 |
| 155 | Radial Growth in 2D Revisited: The Effect of Finite Density, Binding Affinity, Reaction Rates, and Diffusion. *Advanced Materials Interfaces*, **2017**, 4, 1600310 | 4.6 | 3 |
| 154 | Thermodynamic efficiency of learning a rule in neural networks. *New Journal of Physics*, **2017**, 19, 113001 | 2.9 | 6 |
| 153 | Optimal performance of periodically driven, stochastic heat engines under limited control. *Physical Review E*, **2016**, 93, 042112 | 2.4 | 47 |
| 152 | Universal bounds on current fluctuations. *Physical Review E*, **2016**, 93, 052145 | 2.4 | 135 |
| 151 | Periodic thermodynamics of open quantum systems. *Physical Review E*, **2016**, 93, 062134 | 2.4 | 66 |
| 150 | Sensory capacity: An information theoretical measure of the performance of a sensor. *Physical Review E*, **2016**, 93, 022116 | 2.4 | 36 |
| 149 | First and Second Law of Thermodynamics at Strong Coupling. *Physical Review Letters*, **2016**, 116, 020601 | 7.4 | 109 |
| 148 | Optimal inference strategies and their implications for the linear noise approximation. *Physical Review E*, **2016**, 94, 042416 | 2.4 | 2 |
| 147 | Stochastic thermodynamics of resetting. *Europhysics Letters*, **2016**, 113, 60009 | 1.6 | 60 |
| 146 | Extreme fluctuations of active Brownian motion. *New Journal of Physics*, **2016**, 18, 052001 | 2.9 | 26 |
| 145 | Energetics of synchronization in coupled oscillators rotating on circular trajectories. *Physical Review E*, **2016**, 94, 052221 | 2.4 | 8 |
| 144 | Cost and Precision of Brownian Clocks. *Physical Review X*, **2016**, 6, | 9.1 | 76 |
| 143 | Universal bound on the efficiency of molecular motors. *Journal of Statistical Mechanics: Theory and Experiment*, **2016**, 2016, 124004 | 1.9 | 78 |
| 142 | Nanometric thermal fluctuations of weakly confined biomembranes measured with microsecond time-resolution. *Soft Matter*, **2016**, 12, 4755-68 | 3.6 | 13 |
| 141 | Affinity- and topology-dependent bound on current fluctuations. *Journal of Physics A: Mathematical and Theoretical*, **2016**, 49, 34LT01 | 2 | 26 |

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|---|---|---|---|
| 140 | Bound on thermoelectric power in a magnetic field within linear response. *Physical Review E*, **2015**, 91, 012121 | 2.4 | 40 |
| 139 | Effective rates from thermodynamically consistent coarse-graining of models for molecular motors with probe particles. *Physical Review E*, **2015**, 91, 022709 | 2.4 | 24 |
| 138 | Deformation of phospholipid vesicles in an optical stretcher. *Soft Matter*, **2015**, 11, 6075-88 | 3.6 | 26 |
| 137 | Nonequilibrium sensing and its analogy to kinetic proofreading. *New Journal of Physics*, **2015**, 17, 055026 | 2.9 | 34 |
| 136 | Thermodynamic uncertainty relation for biomolecular processes. *Physical Review Letters*, **2015**, 114, 158101 | 7.4 | 348 |
| 135 | Universal bound on the Fano factor in enzyme kinetics. *Journal of Physical Chemistry B*, **2015**, 119, 6555-61 | 3.4 | 62 |
| 134 | Crowding of receptors induces ring-like adhesions in model membranes. *Biochimica Et Biophysica Acta - Molecular Cell Research*, **2015**, 1853, 2984-91 | 4.9 | 15 |
| 133 | Single-molecule measurement of the effective temperature in non-equilibrium steady states. *Nature Physics*, **2015**, 11, 971-977 | 16.2 | 56 |
| 132 | Coherence-enhanced efficiency of feedback-driven quantum engines. *New Journal of Physics*, **2015**, 17, 065006 | 2.9 | 44 |
| 131 | Dispersion for two classes of random variables: general theory and application to inference of an external ligand concentration by a cell. *Physical Review E*, **2015**, 92, 032127 | 2.4 | 11 |
| 130 | Skewness and Kurtosis in Statistical Kinetics. *Physical Review Letters*, **2015**, 115, 188103 | 7.4 | 13 |
| 129 | Multiscale approaches to protein-mediated interactions between membranes—relating microscopic and macroscopic dynamics in radially growing adhesions. *New Journal of Physics*, **2015**, 17, 083016 | 2.9 | 21 |
| 128 | Thermodynamics of Micro- and Nano-Systems Driven by Periodic Temperature Variations. *Physical Review X*, **2015**, 5, | 9.1 | 101 |
| 127 | Fluid vesicles in flow. *Advances in Colloid and Interface Science*, **2014**, 208, 129-41 | 14.3 | 73 |
| 126 | Stochastic thermodynamics of bipartite systems: transfer entropy inequalities and a Maxwell's demon interpretation. *Journal of Statistical Mechanics: Theory and Experiment*, **2014**, 2014, P02016 | 1.9 | 105 |
| 125 | Classical Nernst engine. *Physical Review Letters*, **2014**, 112, 140601 | 7.4 | 34 |
| 124 | Fine-structured large deviations and the fluctuation theorem: Molecular motors and beyond. *Europhysics Letters*, **2014**, 107, 20002 | 1.6 | 16 |
| 123 | Optimized finite-time information machine. *Journal of Statistical Mechanics: Theory and Experiment*, **2014**, 2014, P09010 | 1.9 | 7 |

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|---|---|---|---|
| 122 | Efficiency of cellular information processing. *New Journal of Physics*, **2014**, 16, 103024 | 2.9 | 101 |
| 121 | Stochastic thermodynamics with information reservoirs. *Physical Review E*, **2014**, 90, 042150 | 2.4 | 44 |
| 120 | Association rates of membrane-coupled cell adhesion molecules. *Biophysical Journal*, **2014**, 107, L33-6 | 2.9 | 17 |
| 119 | Signature of a Nonharmonic Potential as Revealed from a Consistent Shape and Fluctuation Analysis of an Adherent Membrane. *Physical Review X*, **2014**, 4, | 9.1 | 4 |
| 118 | Wrinkling instability of vesicles in steady linear flow. *Europhysics Letters*, **2014**, 107, 28001 | 1.6 | 4 |
| 117 | Crystallization in a sheared colloidal suspension. *Journal of Chemical Physics*, **2013**, 138, 224907 | 3.9 | 24 |
| 116 | Rate of Mutual Information Between Coarse-Grained Non-Markovian Variables. *Journal of Statistical Physics*, **2013**, 153, 460-478 | 1.5 | 29 |
| 115 | Strong bounds on Onsager coefficients and efficiency for three-terminal thermoelectric transport in a magnetic field. *Physical Review Letters*, **2013**, 110, 070603 | 7.4 | 124 |
| 114 | Noisy nonlinear dynamics of vesicles in flow. *Physical Review Letters*, **2013**, 110, 238103 | 7.4 | 20 |
| 113 | An autonomous and reversible Maxwell's demon. *Europhysics Letters*, **2013**, 101, 60001 | 1.6 | 79 |
| 112 | Multi-terminal thermoelectric transport in a magnetic field: bounds on Onsager coefficients and efficiency. *New Journal of Physics*, **2013**, 15, 105003 | 2.9 | 63 |
| 111 | Stochastic thermodynamics, fluctuation theorems and molecular machines. *Reports on Progress in Physics*, **2012**, 75, 126001 | 14.4 | 1677 |
| 110 | Role of hidden slow degrees of freedom in the fluctuation theorem. *Physical Review Letters*, **2012**, 108, 220601 | 7.4 | 70 |
| 109 | Dynamics and efficiency of a self-propelled, diffusiophoretic swimmer. *Journal of Chemical Physics*, **2012**, 136, 064508 | 3.9 | 82 |
| 108 | Nonlinear, electrocatalytic swimming in the presence of salt. *Journal of Chemical Physics*, **2012**, 136, 214507 | 3.9 | 48 |
| 107 | Thermodynamics of genuine nonequilibrium states under feedback control. *Physical Review Letters*, **2012**, 108, 030601 | 7.4 | 83 |
| 106 | Efficiencies of a molecular motor: a generic hybrid model applied to the F1-ATPase. *New Journal of Physics*, **2012**, 14, 103023 | 2.9 | 42 |
| 105 | Efficiency of a Brownian information machine. *Journal of Physics A: Mathematical and Theoretical*, **2012**, 45, 162001 | 2 | 42 |

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|---|---|---|---|
| 104 | Effective confinement as origin of the equivalence of kinetic temperature and fluctuation-dissipation ratio in a dense shear-driven suspension. *Physical Review E*, **2012**, 85, 021103 | 2.4 | 11 |
| 103 | Effective tension and fluctuations in active membranes. *Physical Review E*, **2012**, 85, 031913 | 2.4 | 20 |
| 102 | Nucleation of ligand-receptor domains in membrane adhesion. *Physical Review Letters*, **2012**, 109, 258101 | 7.4 | 49 |
| 101 | Effect of thermal noise on vesicles and capsules in shear flow. *Physical Review E*, **2012**, 86, 010902 | 2.4 | 10 |
| 100 | Coexistence of dilute and densely packed domains of ligand-receptor bonds in membrane adhesion. *Europhysics Letters*, **2012**, 99, 38003 | 1.6 | 20 |
| 99 | The large deviation function for entropy production: the optimal trajectory and the role of fluctuations. *Journal of Statistical Mechanics: Theory and Experiment*, **2012**, 2012, P12001 | 1.9 | 33 |
| 98 | Extracting work from a single heat bath through feedback. *Europhysics Letters*, **2011**, 94, 10001 | 1.6 | 110 |
| 97 | Stochastic thermodynamics of single enzymes and molecular motors. *European Physical Journal E*, **2011**, 34, 26 | 1.5 | 80 |
| 96 | Switching from ultraweak to strong adhesion. *Advanced Materials*, **2011**, 23, 2622-6 | 24 | 20 |
| 95 | Two intertwined facets of adherent membranes: membrane roughness and correlations between ligand receptors bonds. *New Journal of Physics*, **2011**, 13, 025003 | 2.9 | 22 |
| 94 | Thermodynamic theory of phase transitions in driven lattice gases. *Physical Review E*, **2011**, 84, 051130 | 2.4 | 5 |
| 93 | Approximate thermodynamic structure for driven lattice gases in contact. *Physical Review E*, **2011**, 84, 041104 | 2.4 | 25 |
| 92 | Efficiency of autonomous soft nanomachines at maximum power. *Physical Review Letters*, **2011**, 106, 020601 | 7.4 | 104 |
| 91 | Diffusing proteins on a fluctuating membrane: analytical theory and simulations. *Physical Review E*, **2010**, 81, 031903 | 2.4 | 35 |
| 90 | Nonequilibrium steady states in contact: approximate thermodynamic structure and zeroth law for driven lattice gases. *Physical Review Letters*, **2010**, 105, 150601 | 7.4 | 22 |
| 89 | Generalized Einstein or Green-Kubo relations for active biomolecular transport. *Physical Review Letters*, **2010**, 104, 138101 | 7.4 | 26 |
| 88 | Fluctuation-dissipation theorem in nonequilibrium steady states. *Europhysics Letters*, **2010**, 89, 10007 | 1.6 | 165 |
| 87 | Communications: Can one identify nonequilibrium in a three-state system by analyzing two-state trajectories?. *Journal of Chemical Physics*, **2010**, 132, 041102 | 3.9 | 16 |

| No. | Reference | IF | Cit. |
|---|---|---|---|
| 86 | Efficiency of surface-driven motion: nanoswimmers beat microswimmers. *Physical Review Letters*, **2010**, 105, 218103 | 7.4 | 44 |
| 85 | Specific adhesion of membranes: Mapping to an effective bond lattice gas. *Physical Review E*, **2010**, 82, 021923 | 2.4 | 24 |
| 84 | Experimental accessibility of generalized fluctuation-dissipation relations for nonequilibrium steady states. *Physical Review E*, **2010**, 82, 032401 | 2.4 | 31 |
| 83 | Optimal potentials for temperature ratchets. *Physical Review E*, **2009**, 79, 031118 | 2.4 | 15 |
| 82 | Extended fluctuation-dissipation theorem for soft matter in stationary flow. *Physical Review E*, **2009**, 79, 040102 | 2.4 | 44 |
| 81 | Optimal protocols for Hamiltonian and Schrödinger dynamics. *Journal of Statistical Mechanics: Theory and Experiment*, **2009**, 2009, P07013 | 1.9 | 15 |
| 80 | Large deviation function for entropy production in driven one-dimensional systems. *Physical Review E*, **2008**, 78, 011123 | 2.4 | 53 |
| 79 | Curvature coupling dependence of membrane protein diffusion coefficients. *Langmuir*, **2008**, 24, 1254-61 | 4 | 32 |
| 78 | Force-induced growth of adhesion domains is controlled by receptor mobility. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 6906-11 | 11.5 | 104 |
| 77 | Optimal protocols for minimal work processes in underdamped stochastic thermodynamics. *Journal of Chemical Physics*, **2008**, 129, 024114 | 3.9 | 77 |
| 76 | Efficiency of molecular motors at maximum power. *Europhysics Letters*, **2008**, 83, 30005 | 1.6 | 93 |
| 75 | Dynamics of specific vesicle-substrate adhesion: from local events to global dynamics. *Physical Review Letters*, **2008**, 101, 208103 | 7.4 | 55 |
| 74 | Role of external flow and frame invariance in stochastic thermodynamics. *Physical Review Letters*, **2008**, 100, 178302 | 7.4 | 40 |
| 73 | Swinging and tumbling of elastic capsules in shear flow. *Journal of Fluid Mechanics*, **2008**, 605, 207-226 | 3.7 | 101 |
| 72 | Stochastic thermodynamics: principles and perspectives. *European Physical Journal B*, **2008**, 64, 423-431 | 1.2 | 316 |
| 71 | Two-dimensional fluctuating vesicles in linear shear flow. *European Physical Journal E*, **2008**, 25, 309-21 | 1.5 | 43 |
| 70 | Vesicles as a model for controlled (de-)adhesion of cells: a thermodynamic approach. *Soft Matter*, **2007**, 3, 275-289 | 3.6 | 43 |
| 69 | The Jarzynski relation, fluctuation theorems, and stochastic thermodynamics for non-Markovian processes. *Journal of Statistical Mechanics: Theory and Experiment*, **2007**, 2007, L09002-L09002 | 1.9 | 58 |

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|---|---|---|---|
| 68 | Entropy Production for Mechanically or Chemically Driven Biomolecules. *Journal of Statistical Physics*, **2007**, 128, 77-93 | 1.5 | 45 |
| 67 | Distribution of entropy production for a colloidal particle in a nonequilibrium steady state. *Europhysics Letters*, **2007**, 79, 30002 | 1.6 | 60 |
| 66 | Stochastic thermodynamics of chemical reaction networks. *Journal of Chemical Physics*, **2007**, 126, 044101 | 3.9 | 115 |
| 65 | Optimal finite-time processes in stochastic thermodynamics. *Physical Review Letters*, **2007**, 98, 108301 | 7.4 | 205 |
| 64 | Einstein relation generalized to nonequilibrium. *Physical Review Letters*, **2007**, 98, 210601 | 7.4 | 118 |
| 63 | Hybrid simulations of lateral diffusion in fluctuating membranes. *Physical Review E*, **2007**, 75, 011908 | 2.4 | 40 |
| 62 | Giant Vesicles: A Theoretical Perspective. *Perspectives in Supramolecular Chemistry*, **2007**, 71-91 | | |
| 61 | Restoring a fluctuation-dissipation theorem in a nonequilibrium steady state. *Europhysics Letters*, **2006**, 74, 391-396 | 1.6 | 184 |
| 60 | Nonmonotonic fluctuation spectra of membranes pinned or tethered discretely to a substrate. *Physical Review E*, **2006**, 73, 010401 | 2.4 | 19 |
| 59 | Adhesion of microcapsules. *Langmuir*, **2006**, 22, 7117-9 | 4 | 9 |
| 58 | Antagonist-induced deadhesion of specifically adhered vesicles. *Biophysical Journal*, **2006**, 90, 1064-80 | 2.9 | 29 |
| 57 | Wrinkling of microcapsules in shear flow. *Journal of Physics Condensed Matter*, **2006**, 18, L185-L191 | 1.8 | 42 |
| 56 | Entropy production along a stochastic trajectory and an integral fluctuation theorem. *Physical Review Letters*, **2005**, 95, 040602 | 7.4 | 935 |
| 55 | Force-induced de-adhesion of specifically bound vesicles: strong adhesion in competition with tether extraction. *Langmuir*, **2005**, 21, 11357-67 | 4 | 8 |
| 54 | Fluctuation theorem for a single enzym or molecular motor. *Europhysics Letters*, **2005**, 70, 36-41 | 1.6 | 77 |
| 53 | Force spectroscopy of single multidomain biopolymers: a master equation approach. *European Physical Journal E*, **2005**, 18, 1-13 | 1.5 | 7 |
| 52 | Lateral diffusion of a protein on a fluctuating membrane. *Europhysics Letters*, **2005**, 71, 859-865 | 1.6 | 62 |
| 51 | Effective adhesion strength of specifically bound vesicles. *Physical Review E*, **2005**, 71, 061902 | 2.4 | 42 |

| 50 | Experimental test of the fluctuation theorem for a driven two-level system with time-dependent rates. *Physical Review Letters*, **2005**, 94, 180602 | 7.4 | 119 |
| 49 | Pulling tethers from adhered vesicles. *Physical Review Letters*, **2004**, 92, 208101 | 7.4 | 54 |
| 48 | Probing molecular free energy landscapes by periodic loading. *Physical Review Letters*, **2004**, 93, 158105 | 7.4 | 52 |
| 47 | Fluctuation theorem for birth-death or chemical master equations with time-dependent rates. *Journal of Physics A*, **2004**, 37, L517-L521 | | 42 |
| 46 | Distribution of work in isothermal nonequilibrium processes. *Physical Review E*, **2004**, 70, 066112 | 2.4 | 69 |
| 45 | Dynamic strength of adhesion molecules: Role of rebinding and self-consistent rates. *Europhysics Letters*, **2002**, 58, 792-798 | 1.6 | 70 |
| 44 | Influence of shear flow on vesicles near a wall: A numerical study. *Physical Review E*, **2001**, 64, 011916 | 2.4 | 105 |
| 43 | Rupture of multiple parallel molecular bonds under dynamic loading. *Physical Review Letters*, **2000**, 84, 2750-3 | 7.4 | 210 |
| 42 | Highly Ordered Size-Dispersive Packings of Polydisperse Microgel Spheres. *Langmuir*, **2000**, 16, 7634-7639 | | 20 |
| 41 | Hydrodynamic Lift on Bound Vesicles. *Physical Review Letters*, **1999**, 83, 876-879 | 7.4 | 71 |
| 40 | Escape from a metastable well under a time-ramped force. *Physical Review E*, **1998**, 57, 7301-7304 | 2.4 | 27 |
| 39 | Modeling nonlinear red cell elasticity. *Biophysical Journal*, **1998**, 75, 1141-2 | 2.9 | 7 |
| 38 | Thermally induced proliferation of pores in a model fluid membrane. *Biophysical Journal*, **1998**, 74, 1754-66 | | 45 |
| 37 | Dynamics of Giant Vesicles. *Molecular Crystals and Liquid Crystals*, **1997**, 292, 213-225 | | 2 |
| 36 | Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory. *Physical Review E*, **1997**, 55, 4458-4474 | 2.4 | 179 |
| 35 | Fluid bilayer vesicles Statistical physics of soft two-dimensional surfaces. *Liquid Crystals Today*, **1997**, 7, 1-9 | 1.9 | |
| 34 | Mesh Collapse in Two-Dimensional Elastic Networks under Compression. *Journal De Physique, I*, **1997**, 7, 1097-1111 | | 8 |
| 33 | Configurations of fluid membranes and vesicles. *Advances in Physics*, **1997**, 46, 13-137 | 18.4 | 1290 |

| # | Reference | | |
|---|---|---|---|
| 32 | Thermal shape fluctuations of fluid-phase phospholipid-bilayer membranes and vesicles. *Journal of Molecular Liquids*, **1997**, 71, 195-207 | 6 | 14 |
| 31 | Effects of Fully and Partially Solubilized Amphiphiles on Bilayer Bending Stiffness and Temperature Dependence of the Effective Tension of Giant Vesicles. *Journal De Physique II*, **1997**, 7, 1141-1157 | | 32 |
| 30 | Starfish vesicles. *Europhysics Letters*, **1996**, 33, 403-408 | 1.6 | 76 |
| 29 | Fluid Vesicles in Shear Flow. *Physical Review Letters*, **1996**, 77, 3685-3688 | 7.4 | 274 |
| 28 | Front Progagation in the Pearling Instability of Tubular Vesicles. *Journal De Physique II*, **1996**, 6, 767-796 | | 49 |
| 27 | Morphology and dynamics of vesicles. *Current Opinion in Colloid and Interface Science*, **1996**, 1, 350-357 | 7.6 | 10 |
| 26 | Straightening of Thermal Fluctuations in Semiflexible Polymers by Applied Tension. *Physical Review Letters*, **1996**, 77, 5389-5392 | 7.4 | 50 |
| 25 | Role of Bilayer Tilt Difference in Equilibrium Membrane Shapes. *Physical Review Letters*, **1996**, 77, 5237-5240 | 7.4 | 75 |
| 24 | Vesicular instabilities: The prolate-to-oblate transition and other shape instabilities of fluid bilayer membranes. *Physical Review E*, **1995**, 52, 6623-6634 | 2.4 | 60 |
| 23 | Spinodal fluctuations of budding vesicles. *Physical Review Letters*, **1995**, 75, 3360-3363 | 7.4 | 38 |
| 22 | Self-consistent theory of bound vesicles. *Physical Review Letters*, **1995**, 74, 5060-5063 | 7.4 | 59 |
| 21 | Gravity-Induced Shape Transformations of Vesicles. *Europhysics Letters*, **1995**, 32, 431-436 | 1.6 | 44 |
| 20 | Dynamical Theory of the Pearling Instability in Cylindrical Vesicles. *Physical Review Letters*, **1995**, 74, 3384-3387 | 7.4 | 113 |
| 19 | Relaxation modes of an adhering bilayer membrane. *Journal De Physique II*, **1994**, 4, 1117-1134 | | 25 |
| 18 | Budding transitions of fluid-bilayer vesicles: The effect of area-difference elasticity. *Physical Review E*, **1994**, 49, 5389-5407 | 2.4 | 396 |
| 17 | Shape equations for axisymmetric vesicles: A clarification. *Physical Review E*, **1994**, 49, 4728-4731 | 2.4 | 78 |
| 16 | Hydrodynamics of membranes: the bilayer aspect and adhesion. *Biophysical Chemistry*, **1994**, 49, 13-22 | 3.5 | 37 |
| 15 | Dynamics of a bound membrane. *Physical Review E*, **1994**, 49, 3124-3127 | 2.4 | 44 |

14  Hydrodynamics of a membrane bound to a substrate. *Zeitschrift Fur Elektrotechnik Und Elektrochemie*, **1994**, 98, 457-460

13  Viscous Modes of Fluid Bilayer Membranes. *Europhysics Letters*, **1993**, 23, 71-76    1.6    210

12  Conformal degeneracy and conformal diffusion of vesicles. *Physical Review Letters*, **1993**, 71, 452-455    7.4    49

11  Negative Poisson ratio in two-dimensional networks under tension. *Physical Review E*, **1993**, 48, 4274-4283    3.4    76

10  Curvature-induced lateral phase segregation in two-component vesicles. *Physical Review Letters*, **1993**, 70, 1335-1338    7.4    162

9  Phase diagrams and shape transformations of toroidal vesicles. *Journal De Physique II*, **1993**, 3, 1681-1705    18

8  Dual network model for red blood cell membranes. *Physical Review Letters*, **1992**, 69, 3405-3408    7.4    47

7  Shape transformations of vesicles: Phase diagram for spontaneous- curvature and bilayer-coupling models. *Physical Review A*, **1991**, 44, 1182-1202    2.6    699

6  Vesicles of toroidal topology. *Physical Review Letters*, **1991**, 66, 2404-2407    7.4    68

5  Adhesion of vesicles in two dimensions. *Physical Review A*, **1991**, 43, 6803-6814    2.6    111

4  Adhesion of Vesicles and Membranes. *Molecular Crystals and Liquid Crystals*, **1991**, 202, 17-25    138

3  Adhesion of membranes: a theoretical perspective. *Langmuir*, **1991**, 7, 1867-1873    4    68

2  Shape Transformations of Giant Vesicles: Extreme Sensitivity to Bilayer Asymmetry. *Europhysics Letters*, **1990**, 13, 659-664    1.6    215

1  Adhesion of vesicles. *Physical Review A*, **1990**, 42, 4768-4771    2.6    420