Felix Ritort

List of Publications by Year
in descending order

102 papers	8,402 citations	87888 38 h-index	43889 91 g-index
102 all docs	102 docs citations	102 times ranked	5760 citing authors

#	Article	IF	Citations
1	Stemâ€“loop formation drives RNA folding in mechanical unzipping experiments. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	21
2	Force-Dependent Folding Kinetics of Single Molecules with Multiple Intermediates and Pathways. Journal of Physical Chemistry Letters, 2022, 13, 1025-1032.	4.6	6
3	Molten globuleâ€“like transition state of protein barnase measured with calorimetric force spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2112382119.	7.1	18
4	Folding Free Energy Determination of an RNA Three-Way Junction Using Fluctuation Theorems. Entropy, 2022, 24, 895.	2.2	0
5	Optical tweezers â€” from calibration to applications: a tutorial. Advances in Optics and Photonics, 2021, 13, 74.	25.5	127
6	Sugar-Pucker Force-Induced Transition in Single-Stranded DNA. International Journal of Molecular Sciences, 2021, 22, 4745.	4.1	6
7	Cooperativity-Dependent Folding of Single-Stranded DNA. Physical Review X, 2021, 11, .	8.9	5
8	Dissipation Reduction and Information-to-Measurement Conversion in DNA Pulling Experiments with Feedback Protocols. Physical Review X, 2021, 11, .	8.9	5
9	Mechanical characterization of base analogue modified nucleic acids by force spectroscopy. Physical Chemistry Chemical Physics, 2021, 23, 14151-14155.	2.8	2
10	Force Dependence of Proteinsâ€™ Transition State Position and the Bellâ€“Evans Model. Nanomaterials, 2021, 11, 3023.	4.1	2
11	Explicit Solution of the Generalised Langevin Equation. Journal of Statistical Physics, 2020, 181, 1609-1635.	1.2	9
12	Direct detection of molecular intermediates from first-passage times. Science Advances, 2020, 6, eaaz4642.	10.3	26
13	Detection of single DNA mismatches by force spectroscopy in short DNA hairpins. Journal of Chemical Physics, 2020, 152, 074204.	3.0	13
14	Work extraction, information-content and the Landauer bound in the continuous Maxwell Demon. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 084013.	2.3	6
15	The Noisy and Marvelous Molecular World of Biology. Inventions, 2019, 4, 24.	2.5	4
16	Large work extraction and the Landauer limit in a continuous Maxwell demon. Nature Physics, 2019, 15, 660-664.	16.7	72
17	Efficient methods for determining folding free energies in single-molecule pulling experiments. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 124001.	2.3	10
18	Experimental evidence of symmetry breaking of transition-path times. Nature Communications, 2019, 10, 55.	12.8	37

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19	Derivation of the spin-glass order parameter from stochastic thermodynamics. Physical Review E, 2018, 97, 052103.	2.1	0
20	Force feedback effects on single molecule hopping and pulling experiments. Journal of Chemical Physics, 2018, 148, 123327.	3.0	16
21	Open questions about DNA melting. Physics of Life Reviews, 2018, 25, 34-36.	2.8	3
22	Study of non-covalent interactions on dendriplex formation: Influence of hydrophobic, electrostatic and hydrogen bonds interactions. Colloids and Surfaces B: Biointerfaces, 2018, 162, 380-388.	5.0	7
23	Experimental test of ensemble inequivalence and the fluctuation theorem in the force ensemble in DNA pulling experiments. Physical Review E, 2018, 98, .	2.1	14
24	Dynamics of individual molecular shuttles under mechanical force. Nature Communications, 2018, 9, 4512.	12.8	33
25	Lymph microvascularization as a prognostic indicator in neuroblastoma. Oncotarget, 2018, 9, 26157-26170.	1.8	12
26	Experimental measurement of binding energy, selectivity, and allostery using fluctuation theorems. Science, 2017, 355, 412-415.	12.6	48
27	Force-Dependent Folding and Unfolding Kinetics in DNA Hairpins Reveals Transition-State Displacements along a Single Pathway. Journal of Physical Chemistry Letters, 2017, 8, 895-900.	4.6	17
28	Single molecule high-throughput footprinting of small and large DNA ligands. Nature Communications, 2017, 8, 304.	12.8	38
29	Derivation of nearest-neighbor DNA parameters in magnesium from single molecule experiments. Nucleic Acids Research, 2017, 45, 12921-12931.	14.5	39
30	Elastic Properties of Nucleic Acids by Single-Molecule Force Spectroscopy. Annual Review of Biophysics, 2016, 45, 65-84.	10.0	67
31	Control of force through feedback in small driven systems. Physical Review E, 2016, 94, 012107.	2.1	13
32	Mechanical Folding and Unfolding of Protein Barnase at the Single-Molecule Level. Biophysical Journal, 2016, 110, 63-74.	0.5	31
33	Universal axial fluctuations in optical tweezers. Optics Letters, 2015, 40, 800.	3.3	2
34	A Temperature-Jump Optical Trap for Single-Molecule Manipulation. Biophysical Journal, 2015, 108, 2854-2864.	0.5	49
35	Single-molecule measurement of the effective temperature in non-equilibrium steady states. Nature Physics, 2015, 11, 971-977.	16.7	66
36	From free energy measurements to thermodynamic inference in nonequilibrium small systems. New Journal of Physics, 2015, 17, 075009.	2.9	21

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37	Single-molecule kinetics and footprinting of DNA bis-intercalation: the paradigmatic case of Thiocoraline. Nucleic Acids Research, 2015, 43, 2767-2779.	14.5	30
38	Elastic properties and secondary structure formation of single-stranded DNA at monovalent and divalent salt conditions. Nucleic Acids Research, 2014, 42, 2064-2074.	14.5	126
39	Determination of the elastic properties of short ssDNA molecules by mechanically folding and unfolding DNA hairpins. Biopolymers, 2014, 101, 1193-1199.	2.4	28
40	Free-energy inference from partial work measurements in small systems. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E3386-94.	7.1	25
41	Counter-propagating dual-trap optical tweezers based on linear momentum conservation. Review of Scientific Instruments, 2013, 84, 043104.	1.3	14
42	Electrostatic Binding and Hydrophobic Collapse of Peptideâ€“Nucleic Acid Aggregates Quantified Using Force Spectroscopy. ACS Nano, 2013, 7, 5102-5113.	14.6	26
43	RecG and UvsW catalyse robust DNA rewinding critical for stalled DNA replication fork rescue. Nature Communications, 2013, 4, 2368.	12.8	65
44	Single-Molecule Stochastic Resonance. Physical Review X, 2012, 2, .	8.9	15
45	Non-specific binding of Na + and Mg 2+ to RNA determined by force spectroscopy methods. Nucleic Acids Research, 2012, 40, 6922-6935.	14.5	78
46	Force Spectroscopy with Dual-Trap Optical Tweezers: Molecular Stiffness Measurements and Coupled Fluctuations Analysis. Biophysical Journal, 2012, 103, 1919-1928.	0.5	12
47	Experimental free-energy measurements ofÂkinetic molecular states using fluctuationÂtheorems. Nature Physics, 2012, 8, 688-694.	16.7	90
48	Improving Signal/Noise Resolution in Single-Molecule Experiments Using Molecular Constructs with Short Handles. Biophysical Journal, 2011, 100, 1765-1774.	0.5	67
49	Improving Free-Energy Estimates from Unidirectional Work Measurements: Theory and Experiment. Physical Review Letters, 2011, 107, 060601.	7.8	54
50	Folding and unfolding of a triple-branch DNA molecule with four conformational states. Philosophical Magazine, 2011, 91, 2049-2065.	1.6	13
51	Fluctuation theorems in small systems: extending thermodynamics to the nanoscale. Europhysics News, 2010, 41, 27-30.	0.3	19
52	1P199 1YA1015 Innovation of new theory of non-equilibrium statistical mechanics and its application to single molecule experiments(Molecular motor,Early Research in Biophysics Award Candidate) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142	0.1	0
53	Investigating the thermodynamics of small biosystems with optical tweezers. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 666-671.	2.7	9
54	Single-molecule derivation of salt dependent base-pair free energies in DNA. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15431-15436.	7.1	215

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55	Recovery of Free Energy Branches in Single Molecule Experiments. Physical Review Letters, 2009, 102, 070602.	7.8	59
56	Statistical Properties of Metastable Intermediates in DNA Unzipping. Physical Review Letters, 2009, 103, 248106.	7.8	21
57	Dynamic force spectroscopy of DNA hairpins: I. Force kinetics and free energy landscapes. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P02060.	2.3	45
58	Dynamic force spectroscopy of DNA hairpins: II. Irreversibility and dissipation. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P02061.	2.3	35
59	Measurement of work in single-molecule pulling experiments. Journal of Chemical Physics, 2009, 130, 234116.	3.0	32
60	Force-induced misfolding in RNA. Physical Review E, 2008, 78, 061925.	2.1	9
61	2P-111 Stochastic resonance in DNA hairpins(The 46th Annual Meeting of the Biophysical Society of) Tj ETQq1 1 0.784314 rgBT /Ove	0.1	0
62	Force Unfolding Kinetics of RNA Using Optical Tweezers. I. Effects of Experimental Variables on Measured Results. Biophysical Journal, 2007, 92, 2996-3009.	0.5	134
63	Force Unfolding Kinetics of RNA using Optical Tweezers. II. Modeling Experiments. Biophysical Journal, 2007, 92, 3010-3021.	0.5	69
64	Condensation Transition in DNA-Polyaminoamide Dendrimer Fibers Studied Using Optical Tweezers. Physical Review Letters, 2006, 96, 118301.	7.8	59
65	Single-molecule experiments in biological physics: methods and applications. Journal of Physics Condensed Matter, 2006, 18, R531-R583.	1.8	315
66	Force-Dependent Fragility in RNA Hairpins. Physical Review Letters, 2006, 96, 218301.	7.8	60
67	Verification of the Crooks fluctuation theorem and recovery of RNA folding free energies. Nature, 2005, 437, 231-234.	27.8	891
68	Resonant Nonequilibrium Temperaturesâ€. Journal of Physical Chemistry B, 2005, 109, 6787-6792.	2.6	13
69	Thermodynamic and Kinetic Aspects of RNA Pulling Experiments. Biophysical Journal, 2005, 88, 3224-3242.	0.5	72
70	The Kuramoto model: A simple paradigm for synchronization phenomena. Reviews of Modern Physics, 2005, 77, 137-185.	45.6	2,547
71	Work and heat fluctuations in two-state systems: a trajectory thermodynamics formalism. Journal of Statistical Mechanics: Theory and Experiment, 2004, 2004, P10016.	2.3	58
72	Experimental test of Hatano and Sasa's nonequilibrium steady-state equality. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15038-15041.	7.1	210

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73	Intermittency of glassy relaxation and the emergence of a non-equilibrium spontaneous measure in the aging regime. Europhysics Letters, 2004, 66, 253-259.	2.0	61
74	Glassy dynamics of kinetically constrained models. Advances in Physics, 2003, 52, 219-342.	14.4	624
75	Bias and error in estimates of equilibrium free-energy differences from nonequilibrium measurements. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12564-12569.	7.1	289
76	A two-state kinetic model for the unfolding of single molecules by mechanical force. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 13544-13548.	7.1	104
77	Aging effects and dynamic scaling in the 3D Edwards-Anderson spin glasses: a comparison with experiments. European Physical Journal B, 2001, 21, 211-217.	1.5	32
78	Configurational entropy and the one-step RSB scenario in glasses. AIP Conference Proceedings, 2001, , .	0.4	0
79	Title is missing!. Journal of Statistical Physics, 2001, 105, 403-404.	1.2	0
80	Are mean-field spin-glass models relevant for the structural glass transition?. Physica A: Statistical Mechanics and Its Applications, 2000, 280, 155-160.	2.6	18
81	Potential energy landscape of finite-size mean-field models for glasses. Europhysics Letters, 2000, 51, 147-153.	2.0	45
82	Activated processes and Inherent Structure dynamics of finite-size mean-field models for glasses. Europhysics Letters, 2000, 52, 640-646.	2.0	37
83	Inherent structures and nonequilibrium dynamics of one-dimensional constrained kinetic models: A comparison study. Journal of Chemical Physics, 2000, 113, 10615-10634.	3.0	38
84	Continuous phase transition in a spin-glass model without time-reversal symmetry. Physical Review E, 1999, 60, 58-68.	2.1	26
85	Quantum phase transition in spin glasses with multi-spin interactions. Physica A: Statistical Mechanics and Its Applications, 1998, 250, 8-45.	2.6	40
86	Aging in the linear harmonic oscillator. Physica A: Statistical Mechanics and Its Applications, 1998, 250, 315-326.	2.6	36
87	Solvable Dynamics in a System of Interacting Random Tops. Physical Review Letters, 1998, 80, 6-9.	7.8	22
88	Exactly Solvable Phase Oscillator Models with Synchronization Dynamics. Physical Review Letters, 1998, 81, 3643-3646.	7.8	30
89	General Method to Determine Replica Symmetry Breaking Transitions. Physical Review Letters, 1998, 81, 1698-1701.	7.8	45
90	Glassy mean-field dynamics of the backgammon model. Journal of Statistical Physics, 1996, 85, 131-150.	1.2	22

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91	Fragile-glass behavior of a short-rangep-spin model. Physical Review B, 1996, 54, 9756-9764.	3.2	33
92	Closure of the Monte Carlo dynamical equations in the spherical Sherrington-Kirkpatrick model. Physical Review B, 1996, 54, 4170-4182.	3.2	15
93	Numerical Evidence for Spontaneously Broken Replica Symmetry in 3D Spin Glasses. Physical Review Letters, 1996, 76, 843-846.	7.8	118
94	Evidence of a critical time in constrained kinetic Ising models. Physical Review B, 1996, 54, 930-937.	3.2	21
95	Matrix Models as Solvable Glass Models. Physical Review Letters, 1995, 74, 1012-1015.	7.8	63
96	Glassiness in a Model without Energy Barriers. Physical Review Letters, 1995, 75, 1190-1193.	7.8	137
97	Dynamical Solution of a Model without Energy Barriers. Europhysics Letters, 1995, 31, 507-512.	2.0	32
98	Evidence of aging in spin-glass mean-field models. Physical Review B, 1994, 49, 6331-6334.	3.2	64
99	Static chaos and scaling behavior in the spin-glass phase. Physical Review B, 1994, 50, 6844-6853.	3.2	46
100	Numerical study of the Ising spin glass in a magnetic field. Journal De Physique, I, 1994, 4, 1619-1625.	1.2	8
101	Numerical Evidence of a Critical Line in the 4 d Ising Spin Glass. Europhysics Letters, 1993, 21, 495-499.	2.0	25
102	Asymmetric Little spin-glass model. Physical Review B, 1992, 46, 5339-5350.	3.2	11