Henri Orland

List of Publications by Year
in descending order

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162 papers	7,058 citations	53660 45 h-index	62479 80 g-index
167 all docs	167 docs citations	167 times ranked	4511 citing authors

#	Article	IF	Citations
1	Conductivity of Concentrated Electrolytes. Physical Review Letters, 2022, 128, 098002.	2.9	22
2	Sampling constrained stochastic trajectories using Brownian bridges. Journal of Chemical Physics, 2022, 157, .	1.2	3
3	Fast computation of exact solutions of generic and degenerate assignment problems. Physical Review E, 2021, 103, 042101.	0.8	2
4	Simultaneous Identification of Multiple Binding Sites in Proteins: A Statistical Mechanics Approach. Journal of Physical Chemistry B, 2021, 125, 5052-5067.	1.2	1
5	Generating stochastic trajectories with global dynamical constraints. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 123204.	0.9	8
6	Multicanonical Monte Carlo ensemble growth algorithm. Physical Review E, 2020, 101, 021301.	0.8	0
7	Numerical Simulation of Finite-Temperature Field Theory for Interacting Bosons. Physical Review Letters, 2020, 124, 070601.	2.9	5
8	Statistical Physics Approach to the Optimal Transport Problem. Physical Review Letters, 2019, 123, 040603.	2.9	11
9	Optimal transport at finite temperature. Physical Review E, 2019, 100, 013310.	0.8	8
10	Numerical Encodings of Amino Acids in Multivariate Gaussian Modeling of Protein Multiple Sequence Alignments. Molecules, 2019, 24, 104.	1.7	2
11	Dielectric constant of ionic solutions: Combined effects of correlations and excluded volume. Journal of Chemical Physics, 2018, 149, 054504.	1.2	40
12	Effect of Memory and Active Forces on Transition Path Time Distributions. Journal of Physical Chemistry B, 2018, 122, 11186-11194.	1.2	30
13	RNA Base Pairing Determines the Conformations of RNA Inside Spherical Viruses. Physical Review Letters, 2017, 119, 188102.	2.9	14
14	Ab initio sampling of transition paths by conditioned Langevin dynamics. Journal of Chemical Physics, 2017, 147, 152703.	1.2	22
15	Transition path time distributions. Journal of Chemical Physics, 2017, 147, 214103.	1.2	40
16	Efficient Sampling of Knotting-Unknotting Pathways for Semiflexible Gaussian Chains. Polymers, 2017, 9, 196.	2.0	3
17	The elusive quest for RNA knots. RNA Biology, 2016, 13, 134-139.	1.5	10
18	Beyond Poissonâ€“Boltzmann: Numerical Sampling of Charge Density Fluctuations. Journal of Physical Chemistry B, 2016, 120, 6270-6277.	1.2	3

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19	Classification and predictions of RNA pseudoknots based on topological invariants. Physical Review E, 2016, 94, 042410.	0.8	5
20	Ionic profiles close to dielectric discontinuities: Specific ion-surface interactions. Journal of Chemical Physics, 2016, 145, 134704.	1.2	12
21	Phase Behavior of DNA in the Presence of DNA-Binding Proteins. Biophysical Journal, 2016, 110, 51-62.	0.2	22
22	Absence of knots in known RNA structures. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2052-2057.	3.3	31
23	Effective Langevin equations for constrained stochastic processes. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P06039.	0.9	62
24	Probing the binding affinity of amyloids to reduce toxicity of oligomers in diabetes. Bioinformatics, 2015, 31, 2294-2302.	1.8	4
25	Modified Poissonâ€“Boltzmann equations for characterizing biomolecular solvation. Journal of Theoretical and Computational Chemistry, 2014, 13, 1440001.	1.8	13
26	Coherent states formulation of polymer field theory. Journal of Chemical Physics, 2014, 140, 024905.	1.2	16
27	Dynamics of polymers: A mean-field theory. Journal of Chemical Physics, 2014, 140, 084902.	1.2	21
28	Computational Assembly of Polymorphic Amyloid Fibrils Reveals Stable Aggregates. Biophysical Journal, 2013, 104, 683-693.	0.2	36
29	McGenus: a Monte Carlo algorithm to predict RNA secondary structures with pseudoknots. Nucleic Acids Research, 2013, 41, 1895-1900.	6.5	29
30	Dipolar Poisson-Boltzmann approach to ionic solutions: A mean field and loop expansion analysis. Journal of Chemical Physics, 2013, 139, 164909.	1.2	55
31	Block copolymer films with free interfaces: Ordering by nanopatterned substrates. Physical Review E, 2012, 86, 010801.	0.8	16
32	Dielectric Constant of Ionic Solutions: A Field-Theory Approach. Physical Review Letters, 2012, 108, 227801.	2.9	195
33	Tailoring Nanostructures Using Copolymer Nanoimprint Lithography. Advanced Materials, 2012, 24, 1952-1955.	11.1	24
34	Organization of Block Copolymers using NanoImprint Lithography: Comparison of Theory and Experiments. Macromolecules, 2011, 44, 2206-2211.	2.2	18
35	A field-theoretic approach to non-equilibrium work identities. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 095002.	0.7	26
36	AquaSAXS: a web server for computation and fitting of SAXS profiles with non-uniformally hydrated atomic models. Nucleic Acids Research, 2011, 39, W184-W189.	6.5	91

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37	Secondary structure formation of homopolymeric single-stranded nucleic acids including force and loop entropy: Implications for DNA hybridization. European Physical Journal E, 2011, 34, 55.	0.7	8
38	Fluctuations in the ensemble of reaction pathways. Journal of Chemical Physics, 2011, 134, 164109.	1.2	13
39	Adapting Poisson-Boltzmann to the self-consistent mean field theory: Application to protein side-chain modeling. Journal of Chemical Physics, 2011, 135, 055104.	1.2	8
40	TT2NE: a novel algorithm to predict RNA secondary structures with pseudoknots. Nucleic Acids Research, 2011, 39, e93-e93.	6.5	32
41	Dominant folding pathways of a peptide chain from ab initio quantum-mechanical simulations. Journal of Chemical Physics, 2011, 134, 024501.	1.2	13
42	Generating transition paths by Langevin bridges. Journal of Chemical Physics, 2011, 134, 174114.	1.2	47
43	Prediction of RNA secondary structures with pseudoknots. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 2987-2992.	1.2	2
44	Knotted vs. Unknotted Proteins: Evidence of Knot-Promoting Loops. PLoS Computational Biology, 2010, 6, e1000864.	1.5	63
45	Dominant reaction pathways in protein folding: A direct validation against molecular dynamics simulations. Journal of Chemical Physics, 2010, 133, 045104.	1.2	34
46	Block Copolymer at Nano-Patterned Surfaces. Macromolecules, 2010, 43, 7261-7268.	2.2	18
47	Accelerated stochastic sampling of discrete statistical systems. Physical Review E, 2010, 82, 056704.	0.8	0
48	Simulating stochastic dynamics using large time steps. Physical Review E, 2009, 80, 061112.	0.8	8
49	MISTRAL: a tool for energy-based multiple structural alignment of proteins. Bioinformatics, 2009, 25, 2663-2669.	1.8	29
50	Dominant reaction pathways in high-dimensional systems. Journal of Chemical Physics, 2009, 130, 064106.	1.2	35
51	Beyond the Poisson-Boltzmann Model: Modeling Biomolecule-Water and Water-Water Interactions. Physical Review Letters, 2009, 102, 087801.	2.9	56
52	Computing Ion Solvation Free Energies Using the Dipolar Poisson Model. Journal of Physical Chemistry B, 2009, 113, 5694-5697.	1.2	25
53	Accelerated Sampling of Boltzmann Distributions. Journal of the Physical Society of Japan, 2009, 78, 103002.	0.7	1
54	Mechanism of Thermal Renaturation and Hybridization of Nucleic Acids: Kramersâ€™ Process and Universality in Watsonâ^'Crick Base Pairing. Journal of Physical Chemistry B, 2009, 113, 3715-3725.	1.2	30

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55	Solvation of Ion Pairs: The Poisson-Langevin Model. , 2009, , .		0
56	Incorporating Dipolar Solvents with Variable Density in Poisson-Boltzmann Electrostatics. Biophysical Journal, 2008, 95, 5587-5605.	0.2	73
57	Topological Classification of RNA Structures. Journal of Molecular Biology, 2008, 379, 900-911.	2.0	97
58	Stochastic dynamics and dominant protein folding pathways. Philosophical Magazine, 2008, 88, 4093-4099.	0.7	0
59	Impact of Loop Statistics on the Thermodynamics of RNA Folding. Physical Review Letters, 2008, 101, 048103.	2.9	20
60	Anharmonicity and Self-Similarity of the Free Energy Landscape of ProteinG. Physical Review Letters, 2007, 98, 048102.	2.9	43
61	Quantitative Protein Dynamics from Dominant Folding Pathways. Physical Review Letters, 2007, 99, 118102.	2.9	67
62	Self-Consistent Field Study of Polyelectrolyte Brushes. Journal of the Physical Society of Japan, 2007, 76, 104601.	0.7	13
63	Dipolar Poisson-Boltzmann Equation: Ions and Dipoles Close to Charge Interfaces. Physical Review Letters, 2007, 99, 077801.	2.9	214
64	Topology of pseudoknotted homopolymers. Physical Review E, 2006, 73, 031902.	0.8	10
65	PDB_Hydro: incorporating dipolar solvents with variable density in the Poisson-Boltzmann treatment of macromolecule electrostatics. Nucleic Acids Research, 2006, 34, W38-W42.	6.5	62
66	Are better conductors more rigid?. Europhysics Letters, 2006, 76, 325-331.	0.7	1
67	Manning condensation in two dimensions. Physical Review E, 2006, 73, 010501.	0.8	16
68	Dominant Pathways in Protein Folding. Physical Review Letters, 2006, 97, 108101.	2.9	143
69	Real symmetric random matrices and replicas. Physical Review E, 2006, 74, 051120.	0.8	2
70	Electric response of DNA hairpins to magnetic fields. Journal of Applied Physics, 2006, 99, 113711.	1.1	2
71	Checking for Optimal Solutions in Some NP-Complete Problems. Physical Review Letters, 2005, 95, 107202.	2.9	1
72	Enumeration of RNA Structures by Matrix Models. Physical Review Letters, 2005, 94, 168103.	2.9	42

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73	Steepest descent calculation of RNA pseudoknots. Physical Review E, 2005, 72, 011911.	0.8	16
74	Test-charge theory for the electric double layer. Physical Review E, 2004, 70, 016102.	0.8	43
75	Generalized Poland-Scheraga model for DNA hybridization. Biopolymers, 2004, 75, 453-467.	1.2	35
76	Variational charge renormalization in charged systems. European Physical Journal E, 2003, 11, 301-311.	0.7	138
77	On the remarkable spectrum of a non-Hermitian random matrix model. Journal of Physics A, 2003, 36, 3385-3400.	1.6	16
78	The random fuse network as a dipolar magnet. Europhysics Letters, 2002, 57, 831-837.	0.7	9
79	RNA folding and large N matrix theory. Nuclear Physics B, 2002, 620, 456-476.	0.9	84
80	A simple model for DNA denaturation. Europhysics Letters, 2001, 55, 132-138.	0.7	50
81	Bridge hopping on conducting polymers in solution. Europhysics Letters, 2001, 55, 59-65.	0.7	2
82	Adsorption of large ions from an electrolyte solution: a modified Poissonâ€“Boltzmann equation. Electrochimica Acta, 2000, 46, 221-229.	2.6	261
83	General formalism for phase combination and phase refinement: a statistical thermodynamics approach in reciprocal space. Acta Crystallographica Section A: Foundations and Advances, 2000, 56, 562-574.	0.3	5
84	Beyond Poisson-Boltzmann: Fluctuation effects and correlation functions. European Physical Journal E, 2000, 1, 203.	0.7	268
85	The role of the energy gap in protein folding dynamics. Europhysics Letters, 2000, 49, 169-175.	0.7	2
86	Polyelectrolyte Titration:Â Theory and Experiment. Journal of Physical Chemistry B, 2000, 104, 11027-11034.	1.2	116
87	Field theory for charged fluids and colloids. Europhysics Letters, 1999, 45, 726-732.	0.7	110
88	Effect of Polyelectrolyte Adsorption on Intercolloidal Forces. Journal of Physical Chemistry B, 1999, 103, 5042-5057.	1.2	91
89	Variational theory for a single polyelectrolyte chain. European Physical Journal B, 1999, 8, 81-98.	0.6	69
90	Phase diagram of magnetic polymers. European Physical Journal B, 1999, 12, 261-268.	0.6	33

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91	Scaling Laws of Polyelectrolyte Adsorption. Macromolecules, 1998, 31, 1665-1671.	2.2	113
92	Flexible conducting polymers: An analytic approach. Journal of Chemical Physics, 1998, 108, 8725-8735.	1.2	4
93	Dynamics of the swelling or collapse of a homopolymer. Europhysics Letters, 1998, 41, 467-472.	0.7	72
94	Gas of self-avoiding loops on the brickwork lattice. Journal of Physics A, 1998, 31, 1685-1694.	1.6	1
95	Directed polymers in a random medium: A variational approach. Physical Review B, 1997, 55, 226-230.	1.1	15
96	Steric Effects in Electrolytes: A Modified Poisson-Boltzmann Equation. Physical Review Letters, 1997, 79, 435-438.	2.9	818
97	Protein Folding, Anisotropic Collapse and Blue Phases. Journal De Physique, I, 1997, 7, 1201-1210.	1.2	15
98	PROTEIN FOLDING AND HETEROPOLYMERS. Series on Directions in Condensed Matter Physics, 1997, , 387-443.	0.1	15
99	Simple Integral Equation for the Polymer Brush. Macromolecules, 1996, 29, 713-717.	2.2	18
100	Variational study of the random-fieldXYmodel. Physical Review B, 1996, 53, R2941-R2944.	1.1	21
101	Phase diagram of a semiflexible polymer chain in a Î¸ solvent: Application to protein folding. Journal of Chemical Physics, 1996, 105, 1601-1608.	1.2	103
102	Protein Adsorption on Lipid Monolayers at their Coexistence Region. Journal De Physique II, 1996, 6, 1023-1047.	0.9	23
103	Polyelectrolyte Solutions between Charged Surfaces. Europhysics Letters, 1995, 32, 499-504.	0.7	88
104	Propagation in random media: Calculation of the effective dispersive permittivity by use of the replica method. Physical Review E, 1995, 52, 1123-1127.	0.8	15
105	A Disorder-Dependent Variational Method Without Replicas: Application to the Random Phase Sine-Gordon Model. Europhysics Letters, 1995, 30, 203-208.	0.7	17
106	Adsorption of Polymers on a Fluctuating Surface. Europhysics Letters, 1995, 29, 303-308.	0.7	10
107	Partially Folded States of Proteins: Characterization by X-ray Scattering. Journal of Molecular Biology, 1995, 254, 960-967.	2.0	49
108	Random Field Ising Model: Dimensional Reduction or Spin-Glass Phase?. Journal De Physique, I, 1995, 5, 987-1001.	1.2	24

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109	Flory theory revisited. Journal De Physique, I, 1994, 4, 101-114.	1.2	17
110	Hall Effect in Composite Media: A Replica Approach. Europhysics Letters, 1994, 27, 305-310.	0.7	3
111	A Variational Approach to Interfaces in Random Media. Europhysics Letters, 1994, 27, 317-322.	0.7	3
112	Replica field theory for composite media. Physica A: Statistical Mechanics and Its Applications, 1994, 207, 106-109.	1.2	1
113	Random hydrophilic-hydrophobic copolymers. Journal De Physique II, 1994, 4, 2139-2148.	0.9	28
114	Biasing a Monte Carlo chain growth method with Ramachandran's plot: Application to twenty-L-alanine. Biopolymers, 1993, 33, 1843-1849.	1.2	13
115	Chiral discrimination in solutions and in Langmuir monolayers. Journal of the American Chemical Society, 1993, 115, 12322-12329.	6.6	68
116	Some physical approaches to protein folding. Journal De Physique, I, 1993, 3, 259-275.	1.2	13
117	Replica field theory for composite media. Journal De Physique, I, 1993, 3, 2171-2177.	1.2	7
118	Formation and stability of secondary structures in globular proteins. Journal De Physique II, 1993, 3, 245-253.	0.9	17
119	Mean-field theory of polymer melting. Journal of Physics A, 1992, 25, L1323-L1329.	1.6	19
120	Conformational distribution of heptaalanine: Analysis using a new Monte Carlo chain growth method. Journal of Computational Chemistry, 1992, 13, 1216-1233.	1.5	37
121	Static and dynamic aspects of disorder lines. Journal of Physics A, 1991, 24, 1245-1252.	1.6	3
122	Scaling behavior of polyelectrolytes and polyampholytes: Simulation by an ensemble growth method. Journal of Chemical Physics, 1991, 95, 4506-4518.	1.2	66
123	A new Monte Carlo method to study protein structures. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1991, 88, 2473-2478.	0.2	6
124	Comparison of a new Monte Carlo peptide conformational search procedure with high temperature molecular dynamics. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1991, 88, 2479-2488.	0.2	6
125	On the Bethe ansatz for random directed polymers. Journal of Statistical Physics, 1990, 61, 877-884.	0.5	49
126	Guided replication of random chain: a new Monte Carlo method. Journal of Physics A, 1990, 23, L621-L626.	1.6	66

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127	Disorder Lines and Nonmonotonous Renormalization Group Flows: Application to the Two-Dimensional XY Model. Europhysics Letters, 1990, 11, 349-354.	0.7	13
128	Random heteropolymers in layered fluids. Journal of Chemical Physics, 1990, 93, 2043-2047.	1.2	8
129	Wetting of a disordered substrate. Lecture Notes in Physics, 1990, , 23-28.	0.3	0
130	Localization and Folding of Random Chains. , 1990, , 105-113.		0
131	Thermodynamics of Ising models with layered randomness: Exact solutions on square and triangular lattices. Physical Review B, 1989, 40, 5094-5108.	1.1	6
132	Low-temperature properties of superconducting materials on sublattice structures. Physical Review B, 1989, 39, 4736-4739.	1.1	0
133	Localization Transition of Random Chains at Interfaces. Europhysics Letters, 1989, 8, 9-13.	0.7	107
134	On the response of a two-level quantum system to a class of time-dependent quasiperiodic perturbations. Journal of Statistical Physics, 1988, 53, 551-564.	0.5	61
135	Thermal fluctuations in some random field models. Journal of Statistical Physics, 1988, 51, 1-27.	0.5	114
136	Exact critical behavior of two-dimensional wetting problems with quenched disorder. Journal of Statistical Physics, 1988, 51, 29-56.	0.5	27
137	Mean-Field Model for Protein Folding. Europhysics Letters, 1988, 6, 307-310.	0.7	177
138	Chemical Sequence and Spatial Structure in Simple Models of Biopolymers. Europhysics Letters, 1988, 6, 597-601.	0.7	69
139	A maximum overlap neural network for pattern recognition. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 125, 32-34.	0.9	15
140	Magnetic phase structure on the Penrose lattice. Journal of Statistical Physics, 1986, 45, 777-800.	0.5	63
141	Irrelevance of bulk symmetry to critical wetting. Physical Review B, 1986, 33, 95-98.	1.1	6
142	Wetting of a Disordered Substrate: Exact Critical Behavior in Two Dimensions. Physical Review Letters, 1986, 57, 2184-2187.	2.9	75
143	An evaluation of the number of Hamiltonian paths. Journal De Physique (Paris), Lettres, 1985, 46, 353-357.	2.8	67
144	One-dimensional random Ising models. Journal of Physics A, 1985, 18, 621-639.	1.6	19

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145	Dynamics of the critical wetting transition. Physical Review B, 1985, 31, 7434-7435.	1.1	7
146	Wetting of a disordered substrate. Physical Review B, 1985, 32, 4683-4686.	1.1	19
147	Mean-field theory for optimization problems. Journal De Physique (Paris), Lettres, 1985, 46, 763-770.	2.8	66
148	Lower Critical Dimension of the Random-Field Ising Model: A Monte Carlo Study. Physical Review Letters, 1984, 52, 145-148.	2.9	49
149	Theory of critical micelle concentration for solutions of block copolymers. Journal of Chemical Physics, 1983, 79, 3550-3557.	1.2	362
150	Path integrals for the nuclear many-body problem. Physical Review C, 1981, 24, 1740-1761.	1.1	74
151	Functional integral methods for quantum spin systems. Annals of Physics, 1981, 132, 277-291.	1.0	14
152	Path integrals, boson expansions and the time dependent mean-field approximations. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1981, 100, 195-200.	1.5	9
153	Polymer expansion of the quantum many-body problem. Physics Letters, Section A: General, Atomic and Solid State Physics, 1980, 76, 213-218.	0.9	1
154	White and weighted averages over solutions of Thouless Anderson Palmer equations for the Sherrington Kirkpatrick spin glass. Journal De Physique, 1980, 41, 923-930.	1.8	121
155	Erratum Path integrals and time-dependent mean-field theories. Journal De Physique (Paris), Lettres, 1980, 41, 401-401.	2.8	5
156	Boson representations for systems of fermions. Journal De Physique (Paris), Lettres, 1980, 41, 523-525.	2.8	4
157	Path integrals and time-dependent mean-field theories. Journal De Physique (Paris), Lettres, 1980, 41, 53-56.	2.8	20
158	Energies of Parameter-Dependent Systems. Physical Review Letters, 1979, 42, 285-287.	2.9	26
159	Two-body collisions and time dependent Hartree-Fock theory. Zeitschrift FÃ¼r Physik A, 1979, 290, 191-204.	1.4	78
160	Single particle states in nuclei. Nuclear Physics A, 1978, 299, 442-464.	0.6	45
161	Hartree-Fock Theory with Hard Cores. Physical Review Letters, 1978, 41, 1016-1019.	2.9	3
162	Tidal bore effect in heavy ion collisions. Journal De Physique (Paris), Lettres, 1976, 37, 327-331.	2.8	5