

Theodorus Maria Nieuwenhuizen

List of Publications by Year in descending order

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133
papers

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citations

94381

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137
all docs

137
docs citations

137
times ranked

2255
citing authors

#	ARTICLE	IF	CITATIONS
1	Subjecting Dark Matter Candidates to the Cluster Test. Fluctuation and Noise Letters, 2020, 19, 2050016.	1.0	2
2	Stochastic Electrodynamics: Lessons from Regularizing the Harmonic Oscillator. Atoms, 2019, 7, 59.	0.7	5
3	The Standard Model of Particle Physics with Diracian Neutrino Sector. Symmetry, 2019, 11, 994.	1.1	1
4	Modified Gravity and its test on galaxy clusters. Monthly Notices of the Royal Astronomical Society, 2018, 476, 3393-3398.	1.6	5
5	Dynamics of quantum measurements employing two Curie-Weiss apparatuses. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160386.	1.6	0
6	A partially occulting MACHO microlensing event in the Twin Quasar Q0957+561. Fortschritte Der Physik, 2017, 65, 1600107.	1.5	0
7	Simultaneous measurement of two noncommuting quantum variables: Solution of a dynamical model. Physical Review A, 2017, 95, .	1.0	17
8	How Zwicky already ruled out modified gravity theories without dark matter. Fortschritte Der Physik, 2017, 65, 1600050.	1.5	13
9	The Contextuality Loophole is Fatal for the Derivation of Bell Inequalities: Reply to a Comment by I. Schmelzer. Foundations of Physics, 2017, 47, 316-319.	0.6	17
10	A sub-ensemble theory of ideal quantum measurement processes. Annals of Physics, 2017, 376, 324-352.	1.0	67
11	On the Stability of Classical Orbits of the Hydrogen Ground State in Stochastic Electrodynamics. Entropy, 2016, 18, 135.	1.1	11
12	Dirac neutrino mass from a neutrino dark matter model for the galaxy cluster Abell 1689. Journal of Physics: Conference Series, 2016, 701, 012022.	0.3	5
13	Simulation of the Hydrogen Ground State in Stochastic Electrodynamics-2: Inclusion of Relativistic Corrections. Foundations of Physics, 2015, 45, 1190-1202.	0.6	13
14	Lectures on dynamical models for quantum measurements. International Journal of Modern Physics B, 2014, 28, 1430014.	1.0	3
15	Understanding quantum measurement from the solution of dynamical models. Physics Reports, 2013, 525, 1-166.	10.3	160
16	Are observations of the galaxy cluster A1689 consistent with a neutrino dark matter scenario?. Monthly Notices of the Royal Astronomical Society, 2013, 434, 2679-2683.	1.6	6
17	Model for common growth of supermassive black holes, bulges and globular star clusters: Ripping off Jeans clusters. Europhysics Letters, 2012, 97, 39001.	0.7	1
18	Exact Schwarzschild-de Sitter black holes in a family of massive gravity models. Physical Review D, 2011, 84, .	1.6	138

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19	An Overview on Single Apparatus Quantum Measurements. Journal of Computational and Theoretical Nanoscience, 2011, 8, 937-948.	0.4	2
20	Is the Contextuality Loophole Fatal for the Derivation of Bell Inequalities?. Foundations of Physics, 2011, 41, 580-591.	0.6	92
21	Simultaneous measurement of non-commuting observables. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 339-342.	1.3	10
22	Bose-Einstein condensed supermassive black holes: A case of renormalized quantum field theory in curved space-time. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 256-268.	1.3	1
23	Physics at the FMQTM08 conference. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 207-227.	1.3	1
24	How adsorption influences DNA denaturation. Physical Review E, 2009, 79, 031903.	0.8	12
25	Gravitational hydrodynamics of large-scale structure formation. Europhysics Letters, 2009, 88, 49001.	0.7	9
26	Do non-relativistic neutrinos constitute the dark matter?. Europhysics Letters, 2009, 86, 59001.	0.7	29
27	Supermassive black holes as giant Bose-Einstein condensates. Europhysics Letters, 2008, 83, 10008.	0.7	7
28	Quantum-state tomography using a single apparatus. Physical Review A, 2008, 77, .	1.0	6
29	Einstein vs. Maxwell: Is gravitation a curvature of space, a field in flat space, or both?. Europhysics Letters, 2007, 78, 10010.	0.7	5
30	Minimal-work principle and its limits for classical systems. Physical Review E, 2007, 75, 051124.	0.8	20
31	Explanation of the Gibbs paradox within the framework of quantum thermodynamics. Physical Review E, 2006, 73, 066119.	0.8	21
32	Kovacs effect in a model for a fragile glass. Physical Review B, 2006, 73, .	1.1	18
33	Walks of molecular motors interacting with immobilized filaments. Physica A: Statistical Mechanics and Its Applications, 2005, 350, 122-130.	1.2	4
34	Adiabatic processes need not correspond to optimal work. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 74-81.	1.3	2
35	Dynamics of a quantum measurement. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 261-271.	1.3	7
36	Movements of molecular motors: Ratchets, random walks and traffic phenomena. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 380-389.	1.3	23

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37	Physics at the FQMT™04 conference. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 29, 1-28.	1.3	9
38	Fluctuations of work from quantum subensembles: The case against quantum work-fluctuation theorems. <i>Physical Review E</i> , 2005, 71, 066102.	0.8	94
39	Minimal work principle: Proof and counterexamples. <i>Physical Review E</i> , 2005, 71, 046107.	0.8	72
40	Work extraction in the spin-boson model. <i>Physical Review E</i> , 2005, 71, 046106.	0.8	56
41	Brownian entanglement. <i>Physical Review A</i> , 2005, 72, .	1.0	27
42	Self-Organized Density Patterns of Molecular Motors in Arrays of Cytoskeletal Filaments. <i>Biophysical Journal</i> , 2005, 88, 3118-3132.	0.2	56
43	Random walks of molecular motors arising from diffusional encounters with immobilized filaments. <i>Physical Review E</i> , 2004, 69, 061911.	0.8	42
44	Quantum spherical spin models. <i>Physical Review E</i> , 2004, 69, 056119.	0.8	17
45	Bath-Assisted Cooling of Spins. <i>Physical Review Letters</i> , 2004, 93, 260404.	2.9	19
46	Maximal work extraction from finite quantum systems. <i>Europhysics Letters</i> , 2004, 67, 565-571.	0.7	301
47	Quantum thermodynamics: Thermodynamics at the nanoscale. <i>Journal of Modern Optics</i> , 2004, 51, 2703-2711.	0.6	35
48	Determining a Quantum State by Means of a Single Apparatus. <i>Physical Review Letters</i> , 2004, 92, 120402.	2.9	81
49	Concentration dependence of the transition temperature in metallic spin glasses. <i>Europhysics Letters</i> , 2004, 66, 419-422.	0.7	8
50	Thermodynamics and small quantum systems. <i>Journal of Modern Optics</i> , 2003, 50, 2433-2441.	0.6	10
51	Curie-Weiss model of the quantum measurement process. <i>Europhysics Letters</i> , 2003, 61, 452-458.	0.7	49
52	Testing the violation of the Clausius inequality in nanoscale electric circuits. <i>Physical Review B</i> , 2002, 66, .	1.1	52
53	Statistical thermodynamics of quantum Brownian motion: Construction of perpetual mobile of the second kind. <i>Physical Review E</i> , 2002, 66, 036102.	0.8	134
54	Walks of molecular motors in two and three dimensions. <i>Europhysics Letters</i> , 2002, 58, 468-474.	0.7	40

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55	A mathematical theorem as the basis for the second law: Thomson's formulation applied to equilibrium. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 305, 542-552.	1.2	56
56	Mean-field theory of quantum Brownian motion. <i>European Physical Journal B</i> , 2001, 23, 87-96.	0.6	0
57	Breakdown of the Landauer bound for information erasure in the quantum regime. <i>Physical Review E</i> , 2001, 64, 056117.	0.8	68
58	Quantum measurement as a driven phase transition: An exactly solvable model. <i>Physical Review A</i> , 2001, 64, .	1.0	16
59	Formulation of thermodynamics for the glassy state: Configurational energy as a modest source of energy. <i>Journal of Chemical Physics</i> , 2001, 115, 8083-8088.	1.2	16
60	Random Walks of Cytoskeletal Motors in Open and Closed Compartments. <i>Physical Review Letters</i> , 2001, 87, 108101.	2.9	240
61	Inherent structures in models for fragile and strong glass. <i>Physical Review E</i> , 2001, 64, 066125.	0.8	8
62	Effective temperatures in an exactly solvable model for a fragile glass. <i>Physical Review E</i> , 2001, 64, 011508.	0.8	11
63	Model glasses coupled to two different heat baths. <i>European Physical Journal B</i> , 2000, 16, 317-335.	0.6	9
64	Interference phenomena in radiation of a charged particle moving in a system with one-dimensional randomness. <i>Physical Review E</i> , 2000, 61, 4656-4658.	0.8	1
65	Steady adiabatic state: Its thermodynamics, entropy production, energy dissipation, and violation of Onsager relations. <i>Physical Review E</i> , 2000, 62, 845-850.	0.8	42
66	Optimizing the Classical Heat Engine. <i>Physical Review Letters</i> , 2000, 85, 232-235.	2.9	12
67	Thermodynamic picture of the glassy state gained from exactly solvable models. <i>Physical Review E</i> , 2000, 61, 267-292.	0.8	59
68	Thermodynamic picture of the glassy state. <i>Journal of Physics Condensed Matter</i> , 2000, 12, 6543-6552.	0.7	22
69	Extraction of Work from a Single Thermal Bath in the Quantum Regime. <i>Physical Review Letters</i> , 2000, 85, 1799-1802.	2.9	151
70	Competition between glassiness and order in a multispin glass. <i>Physical Review E</i> , 1999, 60, R2460-R2463.	0.8	15
71	Theory of site-disordered magnets. <i>European Physical Journal B</i> , 1999, 7, 191-209.	0.6	5
72	Light scattering from mesoscopic objects in diffusive media. <i>European Physical Journal B</i> , 1999, 7, 483-500.	0.6	8

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73	Multiple scattering of classical waves: microscopy, mesoscopy, and diffusion. <i>Reviews of Modern Physics</i> , 1999, 71, 313-371.	16.4	669
74	Scattering from objects immersed in a diffusive medium. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 256, 417-438.	1.2	4
75	Quantum phase transition in spin glasses with multi-spin interactions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 250, 8-45.	1.2	40
76	The marriage problem and the fate of bachelors. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 252, 178-198.	1.2	11
77	Thermodynamics of the Glassy State: Effective Temperature as an Additional System Parameter. <i>Physical Review Letters</i> , 1998, 80, 5580-5583.	2.9	110
78	Thermodynamics of Black Holes: An Analogy with Glasses. <i>Physical Review Letters</i> , 1998, 81, 2201-2204.	2.9	16
79	Solvable Glassy System: Static versus Dynamical Transition. <i>Physical Review Letters</i> , 1997, 78, 3491-3494.	2.9	12
80	Deviations from the Gaussian distribution of mesoscopic conductance fluctuations. <i>Physical Review B</i> , 1997, 55, 4710-4716.	1.1	22
81	Ehrenfest Relations at the Glass Transition: Solution to an Old Paradox. <i>Physical Review Letters</i> , 1997, 79, 1317-1320.	2.9	100
82	Variational Approach to Interfaces in Random Media: Negative Variances and Replica Symmetry Breaking. <i>Journal De Physique, I</i> , 1997, 7, 1513-1521.	1.2	3
83	Multiple Rayleigh Scattering of Electromagnetic Waves. <i>Journal De Physique, I</i> , 1997, 7, 445-483.	1.2	38
84	Theory for multiple light scattering from Rayleigh scatterers in magnetic fields. <i>Physical Review E</i> , 1996, 53, 2881-2908.	0.8	52
85	Theory of semiballistic wave propagation. <i>Physical Review B</i> , 1996, 53, 15914-15931.	1.1	8
86	A Puzzle on Fluctuations of Weights in Spin Glasses. <i>Journal De Physique, I</i> , 1996, 6, 109-117.	1.2	4
87	Optical conductance fluctuations: Diagrammatic analysis in the Landauer approach and nonuniversal effects. <i>Physical Review E</i> , 1995, 51, 6158-6176.	0.8	13
88	To Maximize or Not to Maximize the Free Energy of Glassy Systems. <i>Physical Review Letters</i> , 1995, 74, 3463-3466.	2.9	16
89	Third cumulant of the total transmission of diffuse waves. <i>Physical Review E</i> , 1995, 52, 2053-2065.	0.8	3
90	Exactly Solvable Model of a Quantum Spin Glass. <i>Physical Review Letters</i> , 1995, 74, 4289-4292.	2.9	53

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91	Quantum Description of Spherical Spins. <i>Physical Review Letters</i> , 1995, 74, 4293-4296.	2.9	60
92	Light propagation in a solid with resonant atoms at random positions. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1994, 184, 360-365.	0.9	20
93	Probability Distribution of Multiple Scattered Light Measured in Total Transmission. <i>Physical Review Letters</i> , 1994, 73, 2567-2570.	2.9	47
94	Density of states of disordered systems. <i>Physical Review B</i> , 1994, 49, 13377-13382.	1.1	11
95	Role of a single scatterer in a multiple scattering medium. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1993, 177, 102-106.	0.9	22
96	Influence of skin layers on speckle correlations of light transmitted through disordered media. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1993, 177, 452-458.	0.9	17
97	Semi-Ballistic Transport in Disordered Narrow Devices. <i>Europhysics Letters</i> , 1993, 24, 269-274.	0.7	9
98	Skin layer of diffusive media. <i>Physical Review E</i> , 1993, 48, 569-588.	0.8	69
99	Field Theory for Site-Disordered Spin Glasses. <i>Europhysics Letters</i> , 1993, 24, 797-802.	0.7	10
100	Molecular Layering on a Fluid Substrate. <i>Europhysics Letters</i> , 1992, 20, 235-239.	0.7	15
101	Resonant point scatterers in multiple scattering of classical waves. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1992, 169, 191-194.	0.9	50
102	Universal fluctuations in a simple disordered system. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1991, 160, 461-464.	0.9	7
103	Polymer Adsorption in Random Environment. <i>Europhysics Letters</i> , 1991, 15, 837-842.	0.7	6
104	Diffusion and survival in a medium with imperfect traps. <i>Journal of Statistical Physics</i> , 1990, 59, 53-72.	0.5	11
105	Singularities in spectra of disordered systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1990, 167, 43-65.	1.2	15
106	Thermally Activated Flux Creep in High-Temperature Superconductors: a Stochastic Model. <i>Europhysics Letters</i> , 1990, 11, 457-462.	0.7	7
107	Thermodynamics of Ising models with layered randomness: Exact solutions on square and triangular lattices. <i>Physical Review B</i> , 1989, 40, 5094-5108.	1.1	6
108	Griffiths singularities in two-dimensional random-bond Ising models: Relation with Lifshitz band tails. <i>Physical Review Letters</i> , 1989, 63, 1760-1763.	2.9	17

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109	Trapping and Lifshitz Tails in Random Media, Self-Attracting Polymers, and the Number of Distinct Sites Visited: A Renormalized Instanton Approach in Three Dimensions. <i>Physical Review Letters</i> , 1989, 62, 357-360.	2.9	64
110	Singularities in Spectra of Disordered Systems: An Instanton Approach for Arbitrary Dimension and Randomness. <i>Europhysics Letters</i> , 1989, 9, 407-413.	0.7	16
111	Dynamical properties of 2D systems with site disorder. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1989, 157, 1101-1138.	1.2	4
112	Exact critical behavior of two-dimensional wetting problems with quenched disorder. <i>Journal of Statistical Physics</i> , 1988, 51, 29-56.	0.5	27
113	Lifshitz tails and long-time decay in random systems with arbitrary disorder. <i>Journal of Statistical Physics</i> , 1988, 52, 1-22.	0.5	24
114	Exact Solutions for One-Dimensional Systems with Short-Range Order. <i>Europhysics Letters</i> , 1987, 4, 1109-1114.	0.7	4
115	Objections to Handel's quantum theory of $1/f$ noise. <i>Physical Review A</i> , 1987, 35, 2750-2753.	1.0	38
116	Lifshitz singularities in random harmonic chains: Periodic amplitudes near the band edge and near special frequencies. <i>Journal of Statistical Physics</i> , 1987, 48, 393-424.	0.5	11
117	Lifshitz singularities in the total and the wavenumber-dependent spectral density of random harmonic chains. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1987, 145, 161-189.	1.2	9
118	Special frequencies and Lifshitz singularities in binary random harmonic chains. <i>Journal of Statistical Physics</i> , 1986, 45, 395-417.	0.5	9
119	A Soluble Quasi-Crystalline Magnetic Model: The XY Quantum Spin Chain. <i>Europhysics Letters</i> , 1986, 2, 257-266.	0.7	45
120	$1/f$ noise in d -dimensional hopping model with static disorder. <i>Physical Review B</i> , 1986, 33, 2824-2827.	1.1	10
121	Wetting of a Disordered Substrate: Exact Critical Behavior in Two Dimensions. <i>Physical Review Letters</i> , 1986, 57, 2184-2187.	2.9	75
122	Diffusion and Long-Time Tails in a Two-Dimensional Site-Percolation Model. <i>Physical Review Letters</i> , 1986, 57, 2477-2480.	2.9	51
123	Singular behavior of the density of states and the Lyapunov coefficient in binary random harmonic chains. <i>Journal of Statistical Physics</i> , 1985, 41, 745-771.	0.5	27
124	Excess noise in a hopping model for a resistor with quenched disorder. <i>Journal of Statistical Physics</i> , 1985, 41, 773-801.	0.5	21
125	A generalized Thouless formula as a criterion for Anderson localization in two- and three-dimensional systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1985, 131, 131-156.	1.2	3
126	Transport and spectral properties of strongly disordered chains. <i>Physical Review B</i> , 1985, 31, 3518-3533.	1.1	19

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127	1/fnoise in a hopping model with trapping. Physical Review B, 1985, 31, 7636-7642.	1.1	14
128	Spherical spin-glass models with short-range ferromagnetic interaction: Thermodynamics and correlation functions. Physical Review B, 1985, 31, 7487-7490.	1.1	8
129	Exact solutions for spectra and Green's functions in random one-dimensional systems. Physica A: Statistical Mechanics and Its Applications, 1984, 125, 197-236.	1.2	29
130	Exactly soluble diluted random one-dimensional lattices. Physics Letters, Section A: General, Atomic and Solid State Physics, 1984, 103, 333-336.	0.9	15
131	Exact electronic spectra and inverse localization lengths in one-dimensional random systems. Physica A: Statistical Mechanics and Its Applications, 1983, 120, 468-514.	1.2	35
132	Solution to the nonlinear boltzmann equation for maxwell models for nonisotropic initial conditions. Journal of Statistical Physics, 1982, 29, 591-615.	0.5	18
133	A new approach to the problem of disordered harmonic chains. Physica A: Statistical Mechanics and Its Applications, 1982, 113, 173-202.	1.2	28