Stefan Teufel

List of Publications by Year in descending order

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58 papers	1,285 citations	393982 19 h-index	395343 33 g-index
60 all docs	60 docs citations	60 times ranked	507 citing authors

#	Article	IF	Citations
1	Adiabatic theorem in the thermodynamic limit: Systems with a uniform gap. Journal of Mathematical Physics, 2022, 63, 011901.	0.5	5
2	Adiabatic theorem in the thermodynamic limit: Systems with a gap in the bulk. Forum of Mathematics, Sigma, 2022, 10, .	0.3	5
3	Local stability of ground states in locally gapped and weakly interacting quantum spin systems. Letters in Mathematical Physics, 2022, 112, 9.	0.5	4
4	Hamiltonians without ultraviolet divergence for quantum field theories. Quantum Studies: Mathematics and Foundations, 2021, 8, 17-35.	0.4	10
5	A New Approach to Transport Coefficients in the Quantum Spin Hall Effect. Annales Henri Poincare, 2021, 22, 1069-1111.	0.8	13
6	Justifying Kuboâ€™s formula for gapped systems at zero temperature: A brief review and some new results. Reviews in Mathematical Physics, 2021, 33, 2060004.	0.7	11
7	Non-equilibrium Almost-Stationary States and Linear Response for Gapped Quantum Systems. Communications in Mathematical Physics, 2020, 373, 621-653.	1.0	24
8	Bohmian Trajectories for Hamiltonians with Interiorâ€“Boundary Conditions. Journal of Statistical Physics, 2020, 180, 34-73.	0.5	7
9	Effective non-adiabatic Hamiltonians for the quantum nuclear motion over coupled electronic states. Journal of Chemical Physics, 2019, 151, 014113.	1.2	10
10	Quantum waveguides with magnetic fields. Reviews in Mathematical Physics, 2019, 31, 1950025.	0.7	1
11	Interior-boundary conditions for many-body Dirac operators and codimension-1 boundaries. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 295202.	0.7	6
12	Derivation of the 1d Grossâ€“Pitaevskii Equation from the 3d Quantum Many-Body Dynamics of Strongly Confined Bosons. Annales Henri Poincare, 2019, 20, 1003-1049.	0.8	8
13	Adiabatic currents for interacting fermions on a lattice. Reviews in Mathematical Physics, 2019, 31, 1950009.	0.7	20
14	Optimal Decay of Wannier functions in Chern and Quantum Hall Insulators. Communications in Mathematical Physics, 2018, 359, 61-100.	1.0	32
15	Particle Creation at a Point Source by Means of Interior-Boundary Conditions. Mathematical Physics Analysis and Geometry, 2018, 21, 1.	0.4	21
16	Wannier functions and â„2 invariants in time-reversal symmetric topological insulators. Reviews in Mathematical Physics, 2017, 29, 1730001.	0.7	21
17	The adiabatic limit of SchrÃ¶dinger operators on fibre bundles. Mathematische Annalen, 2017, 367, 1647-1683.	0.7	7
18	Peierls substitution for magnetic Bloch bands. Analysis and PDE, 2016, 9, 773-811.	0.6	18

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19	The NLS Limit for Bosons in a Quantum Waveguide. Annales Henri Poincare, 2016, 17, 3321-3360.	0.8	5
20	Avoiding Ultraviolet Divergence by Means of Interiorâ€“Boundary Conditions. , 2016, , 293-311.		15
21	Generalised Quantum Waveguides. Annales Henri Poincare, 2015, 16, 2535-2568.	0.8	16
22	Semiclassics for Particles with Spin via a Wignerâ€“Weyl-Type Calculus. Annales Henri Poincare, 2014, 15, 1967-1991.	0.8	4
23	Semiclassical Approximations for Hamiltonians with Operator-Valued Symbols. Communications in Mathematical Physics, 2013, 320, 821-849.	1.0	18
24	Orbital Polarization and Magnetization for Independent Particles in Disordered Media. Communications in Mathematical Physics, 2013, 319, 649-681.	1.0	31
25	Resonance phenomena in the interaction of a many-photon wave packet and a qubit. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 315301.	0.7	3
26	Spontaneous Decay of Resonant Energy Levels for Molecules with Moving Nuclei. Communications in Mathematical Physics, 2012, 315, 699-738.	1.0	10
27	Semiclassical approximations for adiabatic slow-fast systems. Europhysics Letters, 2012, 98, 50003.	0.7	3
28	EFFECTIVE HAMILTONIANS FOR THIN DIRICHLET TUBES WITH VARYING CROSS-SECTION. , 2011, , .		6
29	Constrained quantum systems as an adiabatic problem. Physical Review A, 2010, 82, .	1.0	13
30	Bohmian Mechanics. , 2009, , .		41
31	Bohmian Mechanics. , 2009, , 145-171.		9
32	Emergence of exponentially small reflected waves. Asymptotic Analysis, 2009, 64, 53-100.	0.2	1
33	Superadiabatic transitions in quantum molecular dynamics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 3553-3580.	1.0	13
34	Geometric Currents in Piezoelectricity. Archive for Rational Mechanics and Analysis, 2009, 191, 387-422.	1.1	16
35	Effective Dynamics for Particles Coupled to a Quantized Scalar Field. Communications in Mathematical Physics, 2008, 280, 751-805.	1.0	8
36	Energy Transport by Acoustic Modes of Harmonic Lattices. SIAM Journal on Mathematical Analysis, 2008, 40, 1392-1418.	0.9	21

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37	The time-dependent Born-Oppenheimer approximation. ESAIM: Mathematical Modelling and Numerical Analysis, 2007, 41, 297-314.	0.8	39
38	Construction and validation of a rigorous surface hopping algorithm for conical crossings. Communications in Mathematical Sciences, 2007, 5, 789-814.	0.5	25
39	Landau-Zener Formulae from Adiabatic Transition Histories. Lecture Notes in Physics, 2006, , 19-32.	0.3	4
40	Motion of Electrons in Adiabatically Perturbed Periodic Structures. , 2006, , 595-617.		12
41	Semiclassical dynamics of an electron moving in a slowly perturbed periodic potential. , 2006, , .		0
42	Propagation through conical crossings: An asymptotic semigroup. Communications on Pure and Applied Mathematics, 2005, 58, 1188-1230.	1.2	45
43	Simple Proof for Global Existence of Bohmian Trajectories. Communications in Mathematical Physics, 2005, 258, 349-365.	1.0	49
44	Precise Coupling Terms in Adiabatic Quantum Evolution: The Generic Case. Communications in Mathematical Physics, 2005, 260, 481-509.	1.0	19
45	Precise Coupling Terms in Adiabatic Quantum Evolution. Annales Henri Poincare, 2005, 6, 217-246.	0.8	11
46	Effective Dynamics for Bloch Electrons: Peierls Substitution and Beyond. Communications in Mathematical Physics, 2003, 242, 547-578.	1.0	129
47	List of symbols and References. Lecture Notes in Mathematics, 2003, , 225-234.	0.1	0
48	Adiabatic Perturbation Theory in Quantum Dynamics. Lecture Notes in Mathematics, 2003, , .	0.1	207
49	Space-adiabatic perturbation theory. Advances in Theoretical and Mathematical Physics, 2003, 7, 145-204.	0.4	62
50	Space-Adiabatic Perturbation Theory in Quantum Dynamics. Physical Review Letters, 2002, 88, 250405.	2.9	28
51	SEMICLASSICAL MOTION OF DRESSED ELECTRONS. Reviews in Mathematical Physics, 2002, 14, 1-28.	0.7	16
52	Effective N-Body Dynamics for the Massless Nelson Model and Adiabatic Decoupling without Spectral Gap. Annales Henri Poincare, 2002, 3, 939-965.	0.8	15
53	Semiclassical Limit for the SchrÃ¶dinger EquationÂ¶with a Short Scale Periodic Potential. Communications in Mathematical Physics, 2001, 215, 609-629.	1.0	23
54	Adiabatic Decoupling and Time-Dependent Bornâ€“Oppenheimer Theory. Communications in Mathematical Physics, 2001, 224, 113-132.	1.0	57

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55	A Note on the Adiabatic Theorem Without Gap Condition. Letters in Mathematical Physics, 2001, 58, 261-266.	0.5	40
56	Scattering theory from microscopic first principles. Physica A: Statistical Mechanics and Its Applications, 2000, 279, 416-431.	1.2	21
57	Locality and causality in hidden-variables models of quantum theory. Physical Review A, 1997, 56, 1217-1227.	1.0	19
58	Comment on â€œHidden quantum nonlocality revealed by local filtersâ€•by N. Gisin. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 224, 314-316.	0.9	4