

Jan von Delft

List of Publications by Year in descending order

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154
papers

7,171
citations

41344

49
h-index

62596

80
g-index

156
all docs

156
docs citations

156
times ranked

3832
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectroscopy of discrete energy levels in ultrasmall metallic grains. Physics Reports, 2001, 345, 61-173.	25.6	399
2	Bosonization for beginners - refermionization for experts. Annalen Der Physik, 1998, 7, 225-305.	2.4	337
3	Sum-Rule Conserving Spectral Functions from the Numerical Renormalization Group. Physical Review Letters, 2007, 99, 076402.	7.8	310
4	Destructive quantum interference in spin tunneling problems. Physical Review Letters, 1992, 69, 3236-3239.	7.8	238
5	Parity-Affected Superconductivity in Ultrasmall Metallic Grains. Physical Review Letters, 1996, 77, 3189-3192.	7.8	188
6	SU(4) Fermi Liquid State and Spin Filtering in a Double Quantum Dot System. Physical Review Letters, 2003, 90, 026602.	7.8	188
7	Kondo Effect in the Presence of Itinerant-Electron Ferromagnetism Studied with the Numerical Renormalization Group Method. Physical Review Letters, 2003, 91, 247202.	7.8	186
8	Kondo Box: A Magnetic Impurity in an Ultrasmall Metallic Grain. Physical Review Letters, 1999, 82, 2143-2146.	7.8	158
9	2-channel Kondo scaling in conductance signals from 2 level tunneling systems. Physical Review Letters, 1994, 72, 1064-1067.	7.8	150
10	Superradiant Phase Transitions and the Standard Description of Circuit QED. Physical Review Letters, 2011, 107, 113602.	7.8	148
11	Transmission Phase Shift of a Quantum Dot with Kondo Correlations. Physical Review Letters, 2000, 84, 3710-3713.	7.8	131
12	Fixed-N Superconductivity: The Crossover from the Bulk to the Few-Electron Limit. Physical Review Letters, 1998, 81, 4712-4715.	7.8	110
13	Spatial correlations of trapped one-dimensional bosons in an optical lattice. Physical Review A, 2004, 69, .	2.5	108
14	Spin- $\frac{1}{2}$ Kondo effect in an InAs nanowire quantum dot: Unitary limit, conductance scaling, and Zeeman splitting. Physical Review B, 2011, 84, .	3.2	106
15	Dephasing in Metals by Two-Level Systems in the 2-Channel Kondo Regime. Physical Review Letters, 1999, 83, 2632-2635.	7.8	103
16	Variational matrix-product-state approach to quantum impurity models. Physical Review B, 2009, 80, .	3.2	101
17	Paramagnetic Breakdown of Superconductivity in Ultrasmall Metallic Grains. Physical Review Letters, 1997, 79, 921-924.	7.8	100
18	Mesoscopic spin-boson models of trapped ions. Physical Review A, 2008, 78, .	2.5	99

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19	Dynamical Mean-Field Theory Plus Numerical Renormalization-Group Study of Spin-Orbital Separation in a Three-Band Hund Metal. <i>Physical Review Letters</i> , 2015, 115, 136401.	7.8	97
20	Chebyshev matrix product state approach for spectral functions. <i>Physical Review B</i> , 2011, 83, .	3.2	96
21	Critical and Strong-Coupling Phases in One- and Two-Bath Spin-Boson Models. <i>Physical Review Letters</i> , 2012, 108, 160401.	7.8	96
22	Gate-controlled spin splitting in quantum dots with ferromagnetic leads in the Kondo regime. <i>Physical Review B</i> , 2005, 72, .	3.2	93
23	Quantum quench of Kondo correlations in optical absorption. <i>Nature</i> , 2011, 474, 627-630.	27.8	92
24	Microscopic origin of the ~ 0.7 -anomaly TM in quantum point contacts. <i>Nature</i> , 2013, 501, 73-78.	27.8	89
25	Superconductivity in ultrasmall metallic grains. <i>Physical Review B</i> , 1999, 59, 9527-9544.	3.2	85
26	Exact study of the effect of level statistics in ultrasmall superconducting grains. <i>Physical Review B</i> , 2000, 61, R11890-R11893.	3.2	83
27	Universality of the Kondo Effect in Quantum Dots with Ferromagnetic Leads. <i>Physical Review Letters</i> , 2011, 107, 176808.	7.8	82
28	Quantum phase transition in a two-channel-Kondo quantum dot device. <i>Physical Review B</i> , 2004, 69, .	3.2	81
29	Kondo Decoherence: Finding the Right Spin Model for Iron Impurities in Gold and Silver. <i>Physical Review Letters</i> , 2009, 102, 056802.	7.8	77
30	Cavity grid for scalable quantum computation with superconducting circuits. <i>Europhysics Letters</i> , 2009, 85, 50007.	2.0	75
31	Measuring the size of a quantum superposition of many-body states. <i>Physical Review A</i> , 2008, 78, .	2.5	71
32	Theory of Inelastic Scattering from Magnetic Impurities. <i>Physical Review Letters</i> , 2004, 93, 107204.	7.8	69
33	Mesoscopic to Universal Crossover of the Transmission Phase of Multilevel Quantum Dots. <i>Physical Review Letters</i> , 2007, 98, 186802.	7.8	65
34	Kondo quantum dot coupled to ferromagnetic leads: Numerical renormalization group study. <i>Physical Review B</i> , 2007, 76, .	3.2	65
35	A numerical algorithm for the explicit calculation of $SU(N)$ and $SL(N, \mathbb{C})$ Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.1	62
36	Kondo screening cloud in the single-impurity Anderson model: A density matrix renormalization group study. <i>Physical Review B</i> , 2009, 80, .	3.2	58

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37	Many-Body Dynamics of Exciton Creation in a Quantum Dot by Optical Absorption: A Quantum Quench towards Kondo Correlations. <i>Physical Review Letters</i> , 2011, 106, 107402.	7.8	58
38	Magnetic Anisotropy Variations and Nonequilibrium Tunneling in a Cobalt Nanoparticle. <i>Physical Review Letters</i> , 2001, 87, 226801.	7.8	57
39	Nonequilibrium Steady-State Transport in Quantum Impurity Models: A Thermofield and Quantum Quench Approach Using Matrix Product States. <i>Physical Review Letters</i> , 2018, 121, 137702.	7.8	56
40	Efficient simulation of infinite tree tensor network states on the Bethe lattice. <i>Physical Review B</i> , 2012, 86, .	3.2	55
41	Multiloop Functional Renormalization Group That Sums Up All Parquet Diagrams. <i>Physical Review Letters</i> , 2018, 120, 057403.	7.8	55
42	Thermodynamic properties of a small superconducting grain. <i>Physical Review B</i> , 2001, 63, .	3.2	53
43	One-dimensional density waves of ultracold bosons in an optical lattice. <i>Physical Review A</i> , 2005, 71, .	2.5	53
44	Multiloop functional renormalization group for general models. <i>Physical Review B</i> , 2018, 97, .	3.2	53
45	Superconductivity in ultrasmall metallic grains. <i>Annalen Der Physik</i> , 2001, 10, 219-276.	2.4	52
46	Charge oscillations in quantum dots: Renormalization group and Hartree method calculations. <i>Physical Review B</i> , 2005, 72, .	3.2	52
47	Numerical renormalization group calculation of near-gap peaks in spectral functions of the Anderson model with superconducting leads. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 275213.	1.8	52
48	Observing the Nonequilibrium Dynamics of the Quantum Transverse-Field Ising Chain in Circuit QED. <i>Physical Review Letters</i> , 2013, 110, 030601.	7.8	52
49	Hundness versus Mottness in a three-band Hubbard-Hund model: On the origin of strong correlations in Hund metals. <i>Annals of Physics</i> , 2019, 405, 365-409.	2.8	52
50	Algebraic Bethe ansatz for a discrete-state BCS pairing model. <i>Physical Review B</i> , 2002, 66, .	3.2	50
51	Analytical calculation of the finite-size crossover spectrum of the anisotropic two-channel Kondo model. <i>Physical Review B</i> , 2000, 61, 6918-6933.	3.2	49
52	The spin-boson model with a structured environment: a comparison of approaches. <i>Chemical Physics</i> , 2004, 296, 345-353.	1.9	48
53	Spin tunneling in the kagomé antiferromagnet. <i>Physical Review B</i> , 1993, 48, 965-984.	3.2	45
54	Two-temperature scales in the triangular-lattice Heisenberg antiferromagnet. <i>Physical Review B</i> , 2019, 99, .	3.2	44

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55	Fermi-liquid theory for the single-impurity Anderson model. <i>Physical Review B</i> , 2015, 92, .	3.2	43
56	Energy-resolved inelastic electron scattering off a magnetic impurity. <i>Physical Review B</i> , 2005, 72, .	3.2	42
57	Matrix-product-state comparison of the numerical renormalization group and the variational formulation of the density-matrix renormalization group. <i>Physical Review B</i> , 2008, 78, .	3.2	41
58	Simplex valence-bond crystal in the spin-1 kagome Heisenberg antiferromagnet. <i>Physical Review B</i> , 2015, 91, .	3.2	41
59	Signatures of Mottness and Hundness in archetypal correlated metals. <i>Nature Communications</i> , 2019, 10, 2721.	12.8	41
60	Strongly Correlated Materials from a Numerical Renormalization Group Perspective: How the Fermi-Liquid State of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> < \text{mml:mrow} < \text{mml:mrow} < \text{mml:mi} > \text{Sr} < / \text{mml:mi} > < / \text{mml:mrow} > < \text{mml:mrow} < \text{mml:mn} > 2 < / \text{mml:mn} > < / \text{mml:mrow} > $ Emerges. <i>Physical Review Letters</i> , 2020, 124, 016401.	7.8	41
61	Lindblad-driven discretized leads for nonequilibrium steady-state transport in quantum impurity models: Recovering the continuum limit. <i>Physical Review B</i> , 2016, 94, .	3.2	40
62	Finite-Size Bosonization of 2-Channel Kondo Model: A Bridge between Numerical Renormalization Group and Conformal Field Theory. <i>Physical Review Letters</i> , 1998, 81, 196-199.	7.8	38
63	Phase lapses in transmission through interacting two-level quantum dots. <i>New Journal of Physics</i> , 2007, 9, 123-123.	2.9	38
64	Transmission Phase in the Kondo Regime Revealed in a Two-Path Interferometer. <i>Physical Review Letters</i> , 2014, 113, 126601.	7.8	38
65	Model for ferromagnetic nanograins with discrete electronic states. <i>Physical Review B</i> , 2001, 64, .	3.2	37
66	Interleaved numerical renormalization group as an efficient multiband impurity solver. <i>Physical Review B</i> , 2016, 93, .	3.2	34
67	Derivation of exact flow equations from the self-consistent parquet relations. <i>New Journal of Physics</i> , 2018, 20, 123029.	2.9	29
68	Two-bath spin-boson model: Phase diagram and critical properties. <i>Physical Review B</i> , 2014, 90, .	3.2	28
69	At which magnetic field, exactly, does the Kondo resonance begin to split? A Fermi liquid description of the low-energy properties of the Anderson model. <i>Physical Review B</i> , 2018, 98, .	3.2	28
70	Anderson orthogonality in the dynamics after a local quantum quench. <i>Physical Review B</i> , 2012, 85, .	3.2	27
71	Frequency-Dependent Transport through a Quantum Dot in the Kondo Regime. <i>Physical Review Letters</i> , 2005, 94, 196602.	7.8	26
72	Ohmic and Step Noise from a Single Trapping Center Hybridized with a Fermi Sea. <i>Physical Review Letters</i> , 2005, 95, 247006.	7.8	26

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73	Anatomy of quantum critical wave functions in dissipative impurity problems. Physical Review B, 2017, 95, .	3.2	26
74	Absorption and emission in quantum dots: Fermi surface effects of Anderson excitons. Physical Review B, 2005, 72, .	3.2	25
75	Doublon-Holon Origin of the Subpeaks at the Hubbard Band Edges. Physical Review Letters, 2017, 119, 236402.	7.8	25
76	Orbital differentiation in Hund metals. Physical Review B, 2019, 100, .	3.2	25
77	Functional renormalization group approach for inhomogeneous interacting Fermi systems. Physical Review B, 2014, 89, .	3.2	24
78	Thermal tensor renormalization group simulations of square-lattice quantum spin models. Physical Review B, 2019, 100, .	3.2	24
79	Dynamical conductance in the two-channel Kondo regime of a double dot system. Physical Review B, 2007, 76, .	3.2	23
80	Decoherence in weak localization. I. Pauli principle in influence functional. Physical Review B, 2007, 76, .	3.2	23
81	Microscopic model of critical current noise in Josephson-junction qubits: Subgap resonances and Andreev bound states. Physical Review B, 2009, 80, .	3.2	23
82	Nonequilibrium Kondo effect in a magnetic field: auxiliary master equation approach. New Journal of Physics, 2018, 20, 013030.	2.9	22
83	Variational ansatz for the superfluid Mott-insulator transition in optical lattices. Optics Express, 2004, 12, 42.	3.4	21
84	Iron impurities in gold and silver: Comparison of transport measurements to numerical renormalization group calculations exploiting non-Abelian symmetries. Physical Review B, 2013, 88, .	3.2	21
85	Renormalized Lindblad driving: A numerically exact nonequilibrium quantum impurity solver. Physical Review Research, 2020, 2, .	3.6	21
86	Decoherence in weak localization. II. Bethe-Salpeter calculation of the cooperon. Physical Review B, 2007, 76, .	3.2	20
87	Relation between the 0.7 anomaly and the Kondo effect: Geometric crossover between a quantum point contact and a Kondo quantum dot. Physical Review B, 2015, 92, .	3.2	20
88	Ralph et al. Reply. Physical Review Letters, 1995, 75, 770-770.	7.8	19
89	SU(3) Anderson impurity model: A numerical renormalization group approach exploiting non-Abelian symmetries. Physical Review B, 2012, 86, .	3.2	19
90	Quantum many-body simulations of the two-dimensional Fermi-Hubbard model in ultracold optical lattices. Physical Review B, 2021, 103, .	3.2	19

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91	Nonequilibrium excitations in ferromagnetic nanoparticles. <i>Physical Review B</i> , 2002, 65, .	3.2	18
92	Emergent spin-1 trimerized valence bond crystal in the spin- $\frac{1}{2}$ Heisenberg model on the star lattice. <i>Physical Review B</i> , 2018, 97, .	3.2	18
93	The 2-Channel Kondo Model. <i>Annals of Physics</i> , 1999, 273, 175-241.	2.8	17
94	Density matrix renormalization group study of a quantum impurity model with Landau-Zener time-dependent Hamiltonian. <i>Physical Review B</i> , 2009, 79, .	3.2	16
95	Matrix product state approach for a two-lead multilevel Anderson impurity model. <i>Physical Review B</i> , 2010, 81, .	3.2	16
96	Two-color Fermi-liquid theory for transport through a multilevel Kondo impurity. <i>Physical Review B</i> , 2018, 97, .	3.2	16
97	Simplified derivation of the Bethe-ansatz equations for the Dicke model. <i>Physical Review B</i> , 2010, 82, .	3.2	15
98	Josephson effect between superconducting nanograins with discrete energy levels. <i>European Physical Journal B</i> , 2004, 38, 501-513.	1.5	14
99	Anderson orthogonality and the numerical renormalization group. <i>Physical Review B</i> , 2011, 84, .	3.2	14
100	Effect of Spin-Orbit Interactions on the 0.7 Anomaly in Quantum Point Contacts. <i>Physical Review Letters</i> , 2014, 113, 266402.	7.8	14
101	Equilibrium Fermi-liquid coefficients for the fully screened N -channel Kondo model. <i>Physical Review B</i> , 2014, 89, .	3.2	14
102	Hexagon-singlet solid ansatz for the spin-1 kagome antiferromagnet. <i>Physical Review B</i> , 2015, 91, .	3.2	14
103	Functional renormalization group approach for inhomogeneous one-dimensional Fermi systems with finite-ranged interactions. <i>Physical Review B</i> , 2017, 95, .	3.2	14
104	Fermi-edge exciton-polaritons in doped semiconductor microcavities with finite hole mass. <i>Physical Review B</i> , 2017, 96, .	3.2	14
105	Spin Fluctuations in the 0.7 Anomaly in Quantum Point Contacts. <i>Physical Review Letters</i> , 2017, 119, 196401.	7.8	14
106	Multipoint Correlation Functions: Spectral Representation and Numerical Evaluation. <i>Physical Review X</i> , 2021, 11, .	8.9	14
107	Interplay of mesoscopic and Kondo effects for transmission amplitude of few-level quantum dots. <i>Physical Review B</i> , 2009, 80, .	3.2	13
108	Proposed Rabi-Kondo Correlated State in a Laser-Driven Semiconductor Quantum Dot. <i>Physical Review Letters</i> , 2013, 111, 157402.	7.8	13

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109	At which magnetic field, exactly, does the Kondo resonance begin to split? A Fermi liquid description of the low-energy properties of the Anderson model. Physical Review B, 2017, 95, .	3.2	13
110	Abelian $SU(2)$ chiral spin liquids on the square lattice. Physical Review B, 2021, 104, .	3.2	13
111	Comment on "Point-Contact Study of Fast and Slow Two-Level Fluctuators in Metallic Glasses". Physical Review Letters, 1998, 80, 1353-1353.	7.8	12
112	Fixed-N superconductivity: The crossover from the bulk to the few-electron limit. Advances in Solid State Physics, 1999, , 341-350.	0.8	12
113	Symmetric minimally entangled typical thermal states. Physical Review B, 2015, 92, .	3.2	12
114	Fulfillment of sum rules and Ward identities in the multiloop functional renormalization group solution of the Anderson impurity model. Physical Review Research, 2022, 4, .	3.6	12
115	Constrained optimization of sequentially generated entangled multiqubit states. Physical Review A, 2009, 80, .	2.5	11
116	Stroboscopic observation of quantum many-body dynamics. Physical Review A, 2012, 85, .	2.5	11
117	Uncovering Non-Fermi-Liquid Behavior in Hund Metals: Conformal Field Theory Analysis of an $SU(2)$ T_j ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 417 Td (stretchy="false")	3.2	11
118	Global Phase Diagram of a Spin-Orbital Kondo Impurity Model and the Suppression of Fermi-Liquid Scale. Physical Review Letters, 2020, 124, 136406.	7.8	11
119	INFLUENCE FUNCTIONAL FOR DECOHERENCE OF INTERACTING ELECTRONS IN DISORDERED CONDUCTORS. International Journal of Modern Physics B, 2008, 22, 727-833.	2.0	10
120	Dimensional crossover of the dephasing time in disordered mesoscopic rings. Physical Review B, 2009, 80, .	3.2	10
121	Thermal noise and dephasing due to electron interactions in nontrivial geometries. Physical Review B, 2011, 84, .	3.2	10
122	Nonequilibrium dynamics in an optical transition from a neutral quantum dot to a correlated many-body state. Physical Review B, 2013, 88, .	3.2	10
123	The quantum transverse-field Ising chain in circuit quantum electrodynamics: effects of disorder on the nonequilibrium dynamics. New Journal of Physics, 2013, 15, 035013.	2.9	10
124	Dynamic structure factor of the spin-12XXZ chain in a transverse field. Physical Review B, 2016, 94, .	3.2	10
125	Generalized Schrieffer-Wolff transformation of multiflavor Hubbard models. Physical Review B, 2017, 96, .	3.2	10
126	Filling-driven Mott transition in $SU(N)$ Hubbard models. Physical Review B, 2018, 97, .	3.2	10

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127	Computing Local Multipoint Correlators Using the Numerical Renormalization Group. Physical Review X, 2021, 11, .	8.9	10
128	Asymmetric tunable tunneling magnetoresistance in single-electron transistors. Journal of Magnetism and Magnetic Materials, 2000, 219, 104-108.	2.3	9
129	Two pairing parameters in superconducting grains. Physical Review B, 2003, 67, .	3.2	9
130	Thermalization and dynamics in the single-impurity Anderson model. Physical Review B, 2015, 92, .	3.2	9
131	Low-temperature behavior of transmission phase shift across a Kondo correlated quantum dot. Physical Review B, 2016, 94, .	3.2	9
132	Benchmark calculations of multiloop pseudofermion fRG. European Physical Journal B, 2022, 95, .	1.5	9
133	Open Wilson chains for quantum impurity models: Keeping track of all bath modes. Physical Review B, 2017, 95, .	3.2	8
134	Fermi-edge singularity and the functional renormalization group. Journal of Physics Condensed Matter, 2018, 30, 195501.	1.8	7
135	Comment on "Quantum measurement and decoherence". Physical Review A, 2004, 70, .	2.5	6
136	Correlation density matrices for one-dimensional quantum chains based on the density matrix renormalization group. New Journal of Physics, 2010, 12, 075027.	2.9	6
137	Flavor fluctuations in three-level quantum dots: Generic SU(3) Kondo fixed point in equilibrium and non-Kondo fixed points in nonequilibrium. Physical Review B, 2018, 97, .	3.2	6
138	New signatures of the spin gap in quantum point contacts. Nature Communications, 2021, 12, 5.	12.8	6
139	Study of spin symmetry in the doped t - J model using infinite projected entangled pair states. Physical Review B, 2021, 103, .	12.8	6
140	Flow equation renormalization of a spin-boson model with a structured bath. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 18, 343-345.	2.7	5
141	Kondo effect in single-molecule spintronic devices. Journal of Magnetism and Magnetic Materials, 2007, 310, e343-e345.	2.3	5
142	Differentiating Hund from Mott physics in a three-band Hubbard-Hund model: Temperature dependence of spectral, transport, and thermodynamic properties. Physical Review B, 2021, 104, .	3.2	5
143	Reply to: "Extracting Kondo temperature of strongly-correlated systems from the inverse local magnetic susceptibility". Nature Communications, 2021, 12, 1445.	12.8	4
144	Well-Defined Quasiparticles in Interacting Metallic Grains. Physical Review Letters, 2004, 93, 186402.	7.8	3

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145	Dephasing rate formula in the many-body context. Physical Review B, 2009, 80, .	3.2	3
146	The 2-Channel Kondo Model*11. Review of Experimental Evidence for Its Realization in Metal Nanoconstrictions. Annals of Physics, 1998, 263, 1-55.	2.8	2
147	Transport and dephasing in a quantum dot: Multiply connected graph model. Annalen Der Physik, 2012, 524, 188-198.	2.4	2
148	Functional renormalization group treatment of the 0.7 analog in quantum point contacts. Physical Review B, 2018, 98, .	3.2	2
149	Toward combined transport and optical studies of the 0.7 anomaly in a quantum point contact. Physica Status Solidi (B): Basic Research, 2014, 251, 1931-1937.	1.5	1
150	Derivation of Oguri's linear conductance formula for interacting fermions within the Keldysh formalism. Physical Review B, 2017, 96, .	3.2	1
151	Non-Fermi-liquid Kondo screening under Rabi driving. Physical Review B, 2020, 101, .	3.2	1
152	Superconductivity and parity effect in ultrasmall metallic particles. European Physical Journal D, 1996, 46, 2391-2392.	0.4	0
153	Finite-Frequency Transport Through A Quantum Dot In The Kondo Regime. AIP Conference Proceedings, 2006, , .	0.4	0
154	Quantum corrections to the polarizability and dephasing in isolated disordered metals. Physical Review B, 2013, 88, .	3.2	0