

Walter Metzner

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

4,813
citations

257450

24
h-index

289244

40
g-index

40
all docs

40
docs citations

40
times ranked

1942
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Correlated Lattice Fermions in $d \geq 3$ Dimensions. Physical Review Letters, 1989, 62, 324-327. | 7.8 | 2,068 |
| 2 | Functional renormalization group approach to correlated fermion systems. Reviews of Modern Physics, 2012, 84, 299-352. | 45.6 | 531 |
| 3 | d -Wave Superconductivity and Pomeranchuk Instability in the Two-Dimensional Hubbard Model. Physical Review Letters, 2000, 85, 5162-5165. | 7.8 | 407 |
| 4 | Renormalization-group analysis of the two-dimensional Hubbard model. Physical Review B, 2000, 61, 7364-7377. | 3.2 | 278 |
| 5 | The nonperturbative functional renormalization group and its applications. Physics Reports, 2021, 910, 1-114. | 25.6 | 265 |
| 6 | Fermi systems with strong forward scattering. Advances in Physics, 1998, 47, 317-445. | 14.4 | 142 |
| 7 | From Infinite to Two Dimensions through the Functional Renormalization Group. Physical Review Letters, 2014, 112, 196402. | 7.8 | 112 |
| 8 | Impurity and correlation effects on transport in one-dimensional quantum wires. Physical Review B, 2005, 71, . | 3.2 | 89 |
| 9 | Renormalization Group Flows into Phases with Broken Symmetry. Progress of Theoretical Physics, 2004, 112, 943-970. | 2.0 | 87 |
| 10 | Variational theory for correlated lattice fermions in high dimensions. European Physical Journal B, 1989, 77, 253-266. | 1.5 | 83 |
| 11 | Renormalized mean-field analysis of antiferromagnetism and d -wave superconductivity in the two-dimensional Hubbard model. Physical Review B, 2007, 75, . | 3.2 | 66 |
| 12 | Superconductivity in the two-dimensional Hubbard model. Physical Review B, 2014, 89, . | 3.2 | 55 |
| 13 | Pseudogap at hot spots in the two-dimensional Hubbard model at weak coupling. Physical Review B, 2005, 71, . | 3.2 | 49 |
| 14 | Antiferromagnetic and d -wave pairing correlations in the strongly interacting two-dimensional Hubbard model from the functional renormalization group. Physical Review B, 2019, 99, . | 3.2 | 49 |
| 15 | Incommensurate nematic fluctuations in two-dimensional metals. Physical Review B, 2012, 85, . | 3.2 | 47 |
| 16 | Fermi Surface Reconstruction and Drop in the Hall Number due to Spiral Antiferromagnetism in High-T _c Cuprates. Physical Review Letters, 2016, 117, 187001. | 7.8 | 45 |
| 17 | Coexistence of Incommensurate Magnetism and Superconductivity in the Two-Dimensional Hubbard Model. Physical Review Letters, 2016, 116, 096402. | 7.8 | 44 |
| 18 | Scaling behavior of impurities in mesoscopic Luttinger liquids. Physical Review B, 2002, 65, . | 3.2 | 41 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Superconductivity in the attractive Hubbard model: functional renormalization group analysis. <i>New Journal of Physics</i> , 2008, 10, 045003. | 2.9 | 33 |
| 20 | Nonseparable frequency dependence of the two-particle vertex in interacting fermion systems. <i>Physical Review B</i> , 2017, 96, . | 3.2 | 32 |
| 21 | Fermionic renormalization group flow into phases with broken discrete symmetry: charge-density wave mean-field model. <i>European Physical Journal B</i> , 2005, 48, 349-358. | 1.5 | 31 |
| 22 | Competing order in correlated electron systems made simple: Consistent fusion of functional renormalization and mean-field theory. <i>Physical Review B</i> , 2014, 89, . | 3.2 | 31 |
| 23 | Correlation effects on resonant tunneling in one-dimensional quantum wires. <i>Physical Review B</i> , 2005, 71, . | 3.2 | 28 |
| 24 | Effective interactions and fluctuation effects in spin-singlet superfluids. <i>Physical Review B</i> , 2013, 87, . | 3.2 | 24 |
| 25 | Dynamical functional renormalization group computation of order parameters and critical temperatures in the two-dimensional Hubbard model. <i>Physical Review B</i> , 2020, 102, . | 3.2 | 19 |
| 26 | Parametrization of Nambu Vertex in a Singlet Superconductor. <i>Progress of Theoretical Physics</i> , 2010, 124, 471-491. | 2.0 | 17 |
| 27 | Singular order parameter interaction at the nematic quantum critical point in two-dimensional electron systems. <i>Physical Review B</i> , 2011, 84, . | 3.2 | 16 |
| 28 | Longitudinal fluctuations in the Berezinskii-Kosterlitz-Thouless phase. <i>Physical Review B</i> , 2017, 95, . | 3.2 | 16 |
| 29 | Correlated Lattice Fermions in $d \geq 2$ Dimensions. <i>Physical Review Letters</i> , 1989, 62, 1066-1066. | 7.8 | 15 |
| 30 | Longitudinal conductivity and Hall coefficient in two-dimensional metals with spiral magnetic order. <i>Physical Review B</i> , 2018, 98, . | 3.2 | 15 |
| 31 | Low-energy singularities in the ground state of fermionic superfluids. <i>Physical Review B</i> , 2013, 88, . | 3.2 | 14 |
| 32 | Charge carrier drop at the onset of pseudogap behavior in the two-dimensional Hubbard model. <i>Physical Review B</i> , 2020, 101, . | 3.2 | 13 |
| 33 | Non-Fermi-liquid behavior at the onset of incommensurate charge- or spin-density wave order in two dimensions. <i>Physical Review B</i> , 2014, 90, . | 3.2 | 11 |
| 34 | Dynamically enhanced magnetic incommensurability: Effects of local dynamics on nonlocal spin correlations in a strongly correlated metal. <i>Physical Review B</i> , 2018, 97, . | 3.2 | 11 |
| 35 | Fluctuation effects at the onset of the $2k_F$ charge- or spin-density wave order with one pair of hot spots in two-dimensional metals. <i>Physical Review B</i> , 2018, 97, . | | |
| 36 | Non-Hermitian band topology from momentum-dependent relaxation in two-dimensional metals with spiral magnetism. <i>Physical Review B</i> , 2021, 104, . | 3.2 | 7 |

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|----|--|-----|-----------|
| 37 | Phase stiffness in an antiferromagnetic superconductor. Physical Review B, 2019, 100, . | 3.2 | 5 |
| 38 | Spin stiffness, spectral weight, and Landau damping of magnons in metallic spiral magnets. Physical Review B, 2022, 105, . | 3.2 | 5 |
| 39 | Anomalous criticality near semimetal-to-superfluid quantum phase transition in a two-dimensional Dirac cone model. Annalen Der Physik, 2011, 523, 621-628. | 2.4 | 4 |
| 40 | Fluctuation effects at the onset of $2k_F$ density wave order with two pairs of hot spots in two-dimensional metals. Physical Review B, 2021, 104, . | 3.2 | 1 |