

Alessandro Toschi

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/320168/publications.pdf>

Version: 2024-02-01

99
papers

5,244
citations

61984

43
h-index

88630

70
g-index

102
all docs

102
docs citations

102
times ranked

3183
citing authors

#	ARTICLE	IF	CITATIONS
1	Single-boson exchange representation of the functional renormalization group for strongly interacting many-electron systems. Physical Review Research, 2022, 4, .	3.6	15
2	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
3	Long-term memory magnetic correlations in the Hubbard model: A dynamical mean-field theory analysis. SciPost Physics, 2022, 12, .	4.9	10
4	Fingerprints of the Local Moment Formation and its Kondo Screening in the Generalized Susceptibilities of Many-Electron Problems. Physical Review Letters, 2021, 126, 056403.	7.8	29
5	How to read between the lines of electronic spectra: the diagnostics of fluctuations in strongly correlated electron systems. Journal of Physics Condensed Matter, 2021, 33, 214001.	1.8	19
6	Resistivity Exponents in 3D Dirac Semimetals From Electron-Electron Interaction. Physical Review Letters, 2021, 126, 206601.	7.8	5
7	Dynamical vertex approximation for many-electron systems with spontaneously broken SU(2) symmetry. Physical Review B, 2021, 104, .	3.2	9
8	Anisotropy of electronic correlations: On the applicability of local theories to layered materials. Physical Review B, 2021, 103, .	3.2	8
9	Diagrams on the Verge of a Hund's Metals Mott Transition: The Different Fates of χ_{spin} and χ_{spin} in NaOsO_3 and LiOsO_3 . Physical Review Letters, 2020, 125, 166402.	7.8	10
10	High-frequency asymptotics of the vertex function: Diagrammatic parametrization and algorithmic implementation. Physical Review B, 2020, 102, .	3.2	53
11	Characteristic Timescales of the Local Moment Dynamics in Hund's Metals. Physical Review Letters, 2020, 125, 086402.	7.8	21
12	Boson-exchange parquet solver for dual fermions. Physical Review B, 2020, 102, .	3.2	26
13	Attractive Effect of a Strong Electronic Repulsion: The Physics of Vertex Divergences. Physical Review Letters, 2020, 125, 196403.	7.8	24
14	Interplay between local response and vertex divergences in many-fermion systems with on-site attraction. Physical Review B, 2020, 101, .	3.2	22
15	Comparative χ_{spin} study of the structural, electronic, magnetic, and dynamical properties of LiOsO_3 and NaOsO_3 . Physical Review Materials, 2020, 4, .	2.4	11
16	Quantitative functional renormalization group description of the two-dimensional Hubbard model. Physical Review Research, 2020, 2, .	3.6	39
17	Doping-induced insulator-metal transition in the Lifshitz magnetic insulator NaOsO_3 . Journal of Physics Condensed Matter, 2019, 31, 244002.	1.8	3
18	Dynamical vertex approximation for the attractive Hubbard model. Physical Review B, 2019, 99, .	3.2	25

#	ARTICLE	IF	CITATIONS
19	Quantum Criticality in the Two-Dimensional Periodic Anderson Model. Physical Review Letters, 2019, 122, 227201.	7.8	26
20	Multiloop functional renormalization group for the two-dimensional Hubbard model: Loop convergence of the response functions. , 2019, 6, .		47
21	Complementary views on electron spectra: From fluctuation diagnostics to real-space correlations. Physical Review B, 2018, 97, .	3.2	10
22	Divergences of the irreducible vertex functions in correlated metallic systems: Insights from the Anderson impurity model. Physical Review B, 2018, 97, .	3.2	49
23	Efficient Bethe-Salpeter equation treatment in dynamical mean-field theory. Physical Review B, 2018, 97, .	3.2	31
24	Diagrammatic routes to nonlocal correlations beyond dynamical mean field theory. Reviews of Modern Physics, 2018, 90, .	45.6	274
25	Interplay of Correlations and Kohn Anomalies in Three Dimensions: Quantum Criticality with a Twist. Physical Review Letters, 2017, 119, 046402.	7.8	38
26	Breakdown of Traditional Many-Body Theories for Correlated Electrons. Physical Review Letters, 2017, 119, 056402.	7.8	61
27	Merging GW with DMFT and non-local correlations beyond. European Physical Journal: Special Topics, 2017, 226, 2565-2590.	2.6	45
28	Local magnetic moments in iron and nickel at ambient and Earth's core conditions. Nature Communications, 2017, 8, 16062.	12.8	80
29	Effective magnetic correlations in hole-doped graphene nanoflakes. Physical Review B, 2016, 94, .	3.2	23
30	Lifshitz transition driven by spin fluctuations and spin-orbit renormalization in NaOsO ₃ . Physical Review B, 2016, 94, .	3.2	34
31	Dynamical vertex approximation for the two-dimensional Hubbard model. Journal of Magnetism and Magnetic Materials, 2016, 400, 107-111.	2.3	29
32	Parquet decomposition calculations of the electronic self-energy. Physical Review B, 2016, 93, .	3.2	43
33	Impact of nonlocal correlations over different energy scales: A dynamical vertex approximation study. Physical Review B, 2016, 94, .	3.2	66
34	Detecting a preformed pair phase: Response to a pairing forcing field. Physical Review B, 2016, 94, .	3.2	11
35	Nonperturbative landscape of the Mott-Hubbard transition: Multiple divergence lines around the critical endpoint. Physical Review B, 2016, 94, .	3.2	59
36	wopctic: Optical conductivity with Wannier functions and adaptive k-mesh refinement. Computer Physics Communications, 2016, 202, 1-11.	7.5	14

#	ARTICLE	IF	CITATIONS
37	Separability of dynamical and nonlocal correlations in three dimensions. Physical Review B, 2015, 91, .	3.2	31
38	Screened moments and absence of ferromagnetism in FeAl. Physical Review B, 2015, 92, .	3.2	29
39	Correlated starting points for the functional renormalization group. Physical Review B, 2015, 91, .	3.2	37
40	Electronics with Correlated Oxides: $\langle \mathbf{m} \rangle$ and $\langle \mathbf{m} \cdot \mathbf{m} \rangle$ in SrVO_3 and a Mott Transistor. Physical Review Letters, 2015, 114, 246401.	3.2	31
41	Fluctuation Diagnostics of the Electron Self-Energy: Origin of the Pseudogap Physics. Physical Review Letters, 2015, 114, 236402.	7.8	95
42	Fate of the false Mott-Hubbard transition in two dimensions. Physical Review B, 2015, 91, .	3.2	129
43	Dynamical vertex approximation in its parquet implementation: Application to Hubbard nanorings. Physical Review B, 2015, 91, .	3.2	78
44	Importance of d - p Coulomb interaction for high T_C cuprates and other oxides. New Journal of Physics, 2014, 16, 033009.	2.9	44
45	Bands, resonances, edge singularities and excitons in core level spectroscopy investigated within the dynamical mean-field theory. Europhysics Letters, 2014, 108, 57004.	2.0	78
46	From Infinite to Two Dimensions through the Functional Renormalization Group. Physical Review Letters, 2014, 112, 196402.	7.8	112
47	One-particle irreducible functional approach: A route to diagrammatic extensions of the dynamical mean-field theory. Physical Review B, 2013, 88, .	3.2	80
48	Comparing quasiparticle GW+DMFT and LDA+DMFT for the test bed material SrVO_3 . Physical Review B, 2013, 88, .	3.2	56
49	Poor Man's Understanding of Kinks Originating from Strong Electronic Correlations. Physical Review Letters, 2013, 110, 246402.	7.8	34
50	Divergent Precursors of the Mott-Hubbard Transition at the Two-Particle Level. Physical Review Letters, 2013, 110, 246405.	7.8	98
51	Effective crystal field and Fermi surface topology: A comparison of d - and d -orbital models. Physical Review B, 2013, 88, .	3.2	34
52	Mott-Hubbard transition in VO_2 revisited. Physica Status Solidi (B): Basic Research, 2013, 250, 1251-1264.	1.5	70
53	Correlation effects in transport properties of interacting nanostructures. Physical Review B, 2012, 86, .	3.2	24
54	Enhancement of the effective disorder potential and thermopower in Na_xCoO_2 through electron-phonon coupling. Physical Review B, 2012, 86, .	3.2	6

#	ARTICLE	IF	CITATIONS
55	Effective on-site interaction for dynamical mean-field theory. Physical Review B, 2012, 86, . Atomic and itinerant effects at the transition-metal x-ray absorption	3.2	60
56	pre-edge exemplified in the case of V^{2+} O	3.2	13
57	Kinks in the periodic Anderson model. Physical Review B, 2012, 86, .	3.2	7
58	Signature of antiferromagnetic long-range order in the optical spectrum of strongly correlated electron systems. Physical Review B, 2012, 85, .	3.2	43
59	Local electronic correlation at the two-particle level. Physical Review B, 2012, 86, .	3.2	154
60	Dipole matrix element approach versus Peierls approximation for optical conductivity. Physical Review B, 2012, 85, .	3.2	18
61	Spin State of Negative Charge-Transfer Material $SrCoO_3$. Physical Review Letters, 2012, 109, 117206.	7.8	54
62	Quantum dynamical screening of the local magnetic moment in Fe-based superconductors. Physical Review B, 2012, 86, .	3.2	65
63	Conserved quantities of SU(2)-invariant interactions for correlated fermions and the advantages for quantum Monte Carlo simulations. Physical Review B, 2012, 86, . Evolution of the electronic structure of a Mott system across its phase diagram: X-ray absorption spectroscopy study of V^{2+}	3.2	78
64		3.2	22
65	Ab initio calculations with the dynamical vertex approximation. Annalen Der Physik, 2011, 523, 698-705.	2.4	32
66	Orbital characters of three-dimensional Fermi surfaces in $Eu_{2-x}Sr_xNiO_4$ as probed by soft-x-ray angle-resolved photoemission spectroscopy. Physical Review B, 2011, 84, .	3.2	10
67	Effects of electronic correlations and disorder on the thermopower of Na_xCoO_2 Pseudogap of Metallic Layered Nickelate	3.2	20
68			

#	ARTICLE	IF	CITATIONS
73	Electronic structure of nickelates: From two-dimensional heterostructures to three-dimensional bulk materials. Physical Review B, 2010, 82, .	3.2	65
74	Enhancement of the NaxCoO_2 thermopower due to electronic correlations. Physical Review B, 2010, 82, .	3.2	30
75	Toschi et al. Reply. Physical Review Letters, 2010, 104, .	7.8	1
76	Dynamical Vertex Approximation for Nanoscopic Systems. Physical Review Letters, 2010, 104, 246402.	7.8	50
77	Dichotomy between Large Local and Small Ordered Magnetic Moments in Iron-Based Superconductors. Physical Review Letters, 2010, 104, 197002.	7.8	111
78	A microscopic view on the Mott transition in chromium-doped V_2O_3 . Nature Communications, 2010, 1, 105.	12.8	129
79	Spectral properties of the Mott Hubbard insulator ($\text{Cr}_{0.011}\text{V}_{0.989}$) ₂ O ₃ calculated by LDA+DMFT. Journal of Physics: Conference Series, 2010, 200, 012208.	0.4	3
80	Inequivalent Routes across the Mott Transition in V_2O_3 Explored by X-Ray Absorption. Physical Review Letters, 2010, 104, 047401.	7.8	66
81	Comparing pertinent effects of antiferromagnetic fluctuations in the two- and three-dimensional Hubbard model. Physical Review B, 2009, 80, .	3.2	117
82	Pressure and alloying effects on the metal to insulator transition in NiS_2 by infrared spectroscopy. Physical Review B, 2009, 80, .	3.2	35
83	Turning a Nickelate Fermi Surface into a Cupratelike One through Heterostructuring. Physical Review Letters, 2009, 103, 016401.	7.8	229
84	Kinks in the Electronic Specific Heat. Physical Review Letters, 2009, 102, 076402.	7.8	28
85	Electronic correlations in V_2O_3 studied with K-edge X-ray absorption spectroscopy. Journal of Physics: Conference Series, 2009, 190, 012092.	0.4	2
86	Quasiparticle evolution and pseudogap formation in V_2O_3 : An infrared spectroscopy study. Physical Review B, 2008, 77, .	3.2	73
87	Dynamical Vertex Approximation. Progress of Theoretical Physics Supplement, 2008, 176, 117-133.	0.1	64
88	Optical sum rule anomalies in the cuprates: Interplay between strong correlation and electronic band structure. Physical Review B, 2008, 77, .	3.2	14
89	Dynamical vertex approximation: A step beyond dynamical mean-field theory. Physical Review B, 2007, 75, .	3.2	305
90	Optical spectral weight anomalies and strong correlation. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1045-1046.	1.2	0

#	ARTICLE	IF	CITATIONS
91	Static versus dynamical mean-field theory of Mott antiferromagnets. Physical Review B, 2006, 73, .	3.2	74
92	Energetic balance of the superconducting transition across the BCS-Bose Einstein crossover in the attractive Hubbard model. Physical Review B, 2005, 72, .	3.2	86
93	Quasiparticle dephasing time in disordered d-wave superconductors. Physical Review B, 2005, 72, .	3.2	4
94	Temperature Dependence of the Optical Spectral Weight in the Cuprates: Role of Electron Correlations. Physical Review Letters, 2005, 95, 097002.	7.8	62
95	Pairing and superconductivity from weak to strong coupling in the attractive Hubbard model. New Journal of Physics, 2005, 7, 7-7.	2.9	83
96	Low-energy phase-only action in a superconductor: A comparison with the XY model. Physical Review B, 2004, 69, .	3.2	54
97	Coherence length in superconductors from weak to strong coupling. Physical Review B, 2002, 66, .	3.2	25
98	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2002, 15, 517-521.	0.5	1
99	Phase fluctuations in superconductors: From Galilean invariant to quantum XY models. Physical Review B, 2001, 64, .	3.2	12