Publications acknowledging FASTCORR currently in the EU portal

#	Title	Authors	Journal	Number	DOI
1	In Situ Pseudopotentials for Electronic Structure Theory	Kristofer Björnson, John Michael Wills, Mebarek Alouani, Oscar Grånäs, Patrik Thunström, Chin Shen Ong, and Olle Eriksson	J. Phys Chem C	125	10.1021/acs.jpcc.1c04791
2	Ab-initio study of the electronic structure and magnetic properties of Ce2Fe17	Alena Vishina,OlleEriksson, Olga Yu.Vekilova, AndersBergman, Heike C.Herper	journal of alloys and compounds	888	10.1016/j.jallcom.2021.161521
3	Quantifying Spin-Mixed States in Ferromagnets	Justin M. Shaw, Ronny Knut, Abigail Armstrong, Sumanta Bhandary, Yaroslav Kvashnin, Danny Thonig, Erna K. Delczeg-Czirjak, Olof Karis, T. J. Silva, Eugen Weschke, Hans T. Nembach, Olle Eriksson, and Dario A. Arena	Physical Review Letters	127	10.1103/physrevlett.127.207201
4	Antichiral ferromagnetism	Filipp N. Rybakov, Anastasiia Pervishko, Olle Eriksson, and Egor Babaev	PHYSICAL REVIEW B	104	10.1103/physrevb.104.l020406
5	Heisenberg and anisotropic exchange interactions in magnetic materials with correlated electronic structure and significant spin-orbit coupling	Vladislav Borisov, Yaroslav O. Kvashnin, Nikolaos Ntallis, Danny Thonig, Patrik Thunström, Manuel Pereiro, Anders Bergman, Erik Sjöqvist, Anna Delin, Lars Nordström, and Olle Eriksson	PHYSICAL REVIEW B 103,	103	10.1103/physrevb.103.174422
6	Self-induced spin glass state in elemental and crystalline neodymium	Umut Kamber Anders Bergman Andreas Eich Diana Iuşan Manuel Steinbrecher Nadine Hauptmann Lars Nordström Mikhail I. Katsnelson Daniel Wegner Olle Eriksson and Alexander A. Khajetoorians	Science	368	10.1126/science.aay6757
7	Orbital Isotropy of Magnetic Fluctuations in Correlated Electron Materials Induced by Hund's Exchange Coupling	Evgeny A. Stepanov, Yusuke Nomura, Alexander I. Lichtenstein, and Silke Biermann	Physical Review Letters	127	10.1103/physrevlett.127.207205
8	Dual fermion method as a prototype of generic reference-system approach for correlated fermions	Sergey Brener; E. A. Stepanov; Alexey N. Rubtsov; Mikhail I. Katsnelson; Alexander I. Lichtenstein	Annals of Physics	422	10.1016/j.aop.2020.168310
9	Fluctuation diagnostic of the nodal/antinodal dichotomy in the Hubbard model at weak coupling: A parquet dual fermion approach	Friedrich Krien; Alexander I. Lichtenstein; G. Rohringer	Physical Review B	102	10.1103/physrevb.102.235133
10	A DMI Guide to Magnets Micro-World	V. V. Mazurenko; Y. O. Kvashnin; A. I. Lichtenstein; M. I. Katsnelson	Journal of Experimental and Theoretical Physics	132	10.1134/s1063776121040178
11	Parametrizations of local vertex corrections from weak to strong coupling: importance of the Hedin three-leg vertex	Viktor Harkov; Alexander I. Lichtenstein; Friedrich Krien	Physical Review B	104	10.1103/physrevb.104.125141
12	Impact of partially bosonized collective fluctuations on electronic degrees of freedom	V. Harkov; M. Vandelli; S. Brener; A. I. Lichtenstein; E. A. Stepanov	Physical Review B	103	10.1103/physrevb.103.245123
13	Dynamically induced doublon repulsion in the Fermi-Hubbard model probed by a single-particle density of states	V. N. Valmispild, C. Dutreix, M. Eckstein, M. I. Katsnelson, A. I. Lichtenstein, E. A. Stepanov	physical review B	102	10.1103/physrevb.102.220301
14	Gauge invariance and Ward identities in nonlinear response theory	Habib Rostami; Mikhail I. Katsnelson; Giovanni Vignale; Marco Polini	Annals of Physics	431	10.1016/j.aop.2021.168523
15	Probing the topology of the quantum analog of a classical skyrmion	Frederic Mila; Mikhail Katsnelson; Evgeny Stepanov; Vladimir Mazurenko; Oleg Sotnikov; Jeanne Colbois	Phys. Rev. B	103	10.1103/physrevb.103.l060404
16	Electronic structure of chromium trihalides beyond density functional theory	Swagata Acharya; Dimitar Pashov; Brian Cunningham; Alexander N. Rudenko; Malte Rösner; Myrta Grüning; Mark van Schilfgaarde; Mikhail I. Katsnelson	Physical Review B	104	10.1103/physrevb.104.155109
17	Nonequilibrium dual-boson approach	Feng Chen; Mikhail I. Katsnelson; Michael Galperin	Physical Review B, 101, 1 - 10	101	10.1103/physrevb.101.235439
18	Environmental screening and ligand-field effects to magnetism in CrI3 monolayer	D. Soriano; A. N. Rudenko; M. I. Katsnelson; M. Rösner	npj Computational Materials, Vol 7, Iss 1, Pp 1-10 (2021)	7	10.1038/s41524-021-00631-4
19	Random Phase Approximation for gapped systems: role of vertex corrections and applicability of the constrained random phase approximation	Erik G. C. P. van Loon; Malte Rösner; Mikhail I. Katsnelson; Tim O. Wehling	Physical Review B, 104, 1 - 18	104	10.1103/physrevb.104.045134
20	Importance of Charge Self-Consistency in First-Principles Description of Strongly Correlated Systems	Swagata Acharya, Dimitar Pashov, Alexander N. Rudenko, Malte Rösner, Mark van Schilfgaarde, and Mikhail I. Katsnelson	NPJ Computational Materials	7	10.1038/s41524-021-00676-5

21	Electron correlation effects on exchange interactions and spin excitations in 2D van der Waals materials	Liqin Ke; Mikhail I. Katsnelson	VOLUME=7;STARTPAGE=1;ENDPAGE=8;ISSN=2057-3960;TITLE=Npj Computational Materials	7	10.1038/s41524-020-00469-2
22	Exchange scaling of ultrafast angular momentum transfer in 4$\it{f}$ antiferromagnets	Windsor, Y. W.; Lee, S-E.; Zahn, D.; Borisov, V.; Thonig, D.; Kliemt, K.; Ernst, A.; Schüßler-Langeheine, C.; Pontius, N.; Staub, U.; Krellner, C.; Vyalikh, D. V.; Eriksson, O.; Rettig, L.	Nature Materials	21	10.1038/s41563-022-01206-4
23	Exchange constants for local spin Hamiltonians from tight-binding models	Simon Streib; Attila Szilva; Vladislav Borisov; Manuel Pereiro; Anders Bergman; Erik Sjöqvist; Anna Delin; Mikhail I. Katsnelson; Olle Eriksson; Olle Eriksson; Danny Thonig; Danny Thonig	Physical Review B	103	10.1103/physrevb.103.224413
24	Dynamical correlations in single-layer CrI$_3$	Kvashnin, Yaroslav O.; Rudenko, Alexander N.; Thunström, Patrik; Rösner, Malte; Katsnelson, Mikhail I.	Physical Review B	105	10.1103/physrevb.105.205124
25	Hidden spin-orbital hexagonal ordering induced by strong correlations in LiVS 2	Lewin Boehnke; Alexander I. Lichtenstein; Mikhail I. Katsnelson; Frank Lechermann	Physical Review B	102	10.1103/physrevb.102.115118
26	Unconventional magnetism and electronic state in the frustrated layered system PdCrO2	Evgenia V. Komleva; Valentin Yu. Irkhin; Igor Solovyev; Igor Solovyev; Mikhail I. Katsnelson; Mikhail I. Katsnelson; Sergey V. Streltsov	Phys. Rev. B	102	10.1103/physrevb.102.174438
27	Valence fluctuations and Kondo resonance in Co adatom on Cu2N/Cu(100) surface: DFT + ED study	M Tchaplianka; Alexander B. Shick; Alexander I. Lichtenstein	New Journal of Physics	23	10.1088/1367-2630/ac2d71
28	Local structural evolution in the anionic solid solution Zn Se x S 1 − x	Tinku Dan; Ashutosh Mohanty; Anirban Dutta; Rahul Mahavir Varma; Sagar Sarkar; Igor Di Marco; Igor Di Marco; Igor Di Marco; Olle Eriksson; Olle Eriksson; Edmund Welter; Simone Pollastri; Luca Olivi; K. R. Priolkar; D. D. Sarma	Physical Review B	104	10.1103/physrevb.104.184113
29	Magnon-magnon entanglement and its quantification via a microwave cavity	Vahid Azimi Mousolou; Yuefei Liu; Anders Bergman; Anna Delin; Olle Eriksson; Manuel Pereiro; Danny Thonig; Erik Sjöqvist	Physical Review B	104	10.1103/physrevb.104.224302
30	Photoelectron dispersion in metallic and insulating VO 2 thin films	Viktor Jonsson; Luca Piazza; Martin Månsson; Jonas Weissenrieder; Oscar Tjernberg; Sergiy Khartsev; Yasmine Sassa; D. G. Mazzone; Nicolas Gauthier; Matthias Muntwiler; Chin Shen Ong; Diana Iusan; Patrik Thunström; Olle Eriksson	Physical Review Research	3	10.1103/physrevresearch.3.033286
31	Connection between magnetic interactions and the spin-wave gap of the insulating phase of NaOsO 3	Nikolaos Ntallis; Vladislav Borisov; Yaroslav Kvashnin; Danny Thonig; Erik Sjöqvist; Anders Bergman; Anna Delin; Olle Eriksson; Olle Eriksson; Manuel Pereiro	Physical Review B	104	10.1103/physrevb.104.134433
32	Role of nematicity in controlling spin fluctuations and superconducting <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>T</mml:mi><mml:mi>c</mml:mi></mml:msub></mml:math> in bulk FeSe	Swagata Acharya; Dimitar Pashov; Mark van Schilfgaarde	Physical Review B	105	10.1103/physrevb.105.144507
33	Kinetic samplers for neural quantum states	Andrey A. Bagrov; Andrey A. Bagrov; Askar A. Iliasov; Askar A. Iliasov; Tom Westerhout	Physical Review B	104	10.1103/physrevb.104.104407
34	Broken-Symmetry Ground States of the Heisenberg Model on the Pyrochlore Lattice	Nikita Astrakhantsev; Tom Westerhout; Apoorv Tiwari; Apoorv Tiwari; Kenny Choo; Ao Chen; Mark H. Fischer; Giuseppe Carleo; Titus Neupert	Physical Review X	11	10.3929/ethz-b-000515011
35	`lattice-symmetries`: A package for working with quantum many-body bases	Tom Westerhout	The Journal of Open Source Software	6	10.21105/joss.03537
36	Direct Observation of Incommensurate-Commensurate Transition in Graphene-hBN Heterostructures via Optical Second Harmonic Generation.	Stepanov, E. A.; Stepanov, E. A.; Semin, S. V.; Woods, C. R.; Woods, C. R.; Vandelli, M.; Vandelli, M.; Vandelli, M.; Kimel, A. V.; Novoselov, K. S.; Novoselov, K. S.; Novoselov, K. S.; Katsnelson, M. I.; Katsnelson, M. I.	ACS Applied materials and interfaces	12	10.1021/acsami.0c05965
37	Spin dynamics of itinerant electrons: Local magnetic moment formation and Berry phase	E. A. Stepanov; S. Brener; V. Harkov; M. I. Katsnelson; A. I. Lichtenstein	Physical Review B	105	10.1103/physrevb.105.155151

38	Thermally induced magnetic order from glassiness in elemental neodymium.	Benjamin Verlhac, Lorena Niggli, Anders Bergman, Umut Kamber, Andrey Bagrov, Diana Iuşan, Lars Nordström, Mikhail I. Katsnelson, Daniel Wegner, Olle Eriksson & Alexander A. Khajetoorians	Nature Physics		10.1038/s41567-022-01633-9
39	Gating orbital memory with an atomic donor	Elze J. Knol; Brian Kiraly; Alexander N. Rudenko; Werner M. J. van Weerdenburg; Mikhail I. Katsnelson; Alexander A. Khajetoorians	Physical Review Letters	128	10.1103/physrevlett.128.106801
40	Detecting quantum critical points in the t−t′ Fermi-Hubbard model via complex network theory	Andrey A. Bagrov; Mikhail Danilov; S. Brener; Malte Harland; Alexander I. Lichtenstein; Mikhail I. Katsnelson	Scientific Reports	10	10.1038/s41598-020-77513-0
41	Emergent Non-Abelian Gauge Theory in Coupled Spin-Electron Dynamics	Nicolas Lenzing; Alexander I. Lichtenstein; Michael Potthoff	Physical Review B	106	10.48550/arxiv.2202.04694
42	Extended regime of metastable metallic and insulating phases in a two-orbital electronic system	M. Vandelli; J. Kaufmann; V. Harkov; A. I. Lichtenstein; K. Held; E. A. Stepanov	Physical Review Research	5	10.1103/physrevresearch.5.l022016
43	Lattice Dynamics and Electron–Phonon Coupling in Double Perovskite Cs₂NaFeCl₆	Bin Zhang; Johan Klarbring; Fuxiang Ji; Sergei I. Simak; Igor A. Abrikosov; Feng Gao; Galyna Yu Rudko; Weimin M. Chen; Irina A. Buyanova	J. Phys. Chem. C	127	10.1021/acs.jpcc.2c07493
44	Stable Sulfuric Vapor Transport and Liquid Sulfur Growth on Transition Metal Dichalcogenides	Dmitriy A. Chareev; Md Ezaz Hasan Khan; Debjani Karmakar; Aleksey N. Nekrasov; Maximilian S. Nickolsky; Olle Eriksson; Anna Delin; Alexander N. Vasiliev; Mahmoud Abdel-Hafiez	Cryst. Growth Des.	23	10.1021/acs.cgd.2c01318
45	Correlated quantum dynamics of graphene clusters	François Rousse; Olle Eriksson; Magnus Ögren	Physical Review B	107	10.1103/physrevb.107.134306
46	The role of correlated hopping in many-body physics of flat-band systems: Nagaoka ferromagnetism	Tom Westerhout; Mikhail Katsnelson	Physical Review B	106	10.48550/arxiv.2202.12757
47	Topological dynamical quantum phase transition in a quantum skyrmion phase	Vipin Vijayan; L. Chotorlishvili; A. Ernst; S. S. P. Parkin; M. I. Katsnelson; S. K. Mishra	Physical Review B	107	10.48550/arxiv.2303.06977
48	Excitations and spectra from equilibrium real-time Green's functions	Xinyang Dong; Hugo Strand; Emanuel Gull	Physical Review B	106	10.48550/arxiv.2206.04181
49	Spin-orbit coupling and Kondo resonance in the Co adatom on the Cu(100) surface: DFT plus exact diagonalization study	A. B. Shick; M. Tchaplianka; A. I. Lichtenstein	Physical Review B	106	10.1103/physrevb.106.245115
50	libdlr: Efficient imaginary time calculations using the discrete Lehmann representation	Jason Kaye; Kun Chen; Hugo U.R. Strand	Computer Physics Communications	280	10.48550/arxiv.2110.06765
51	Exotic Magnetic and Electronic Properties of Layered CrI3 Single Crystals Under High Pressure	Anirudha Ghosh; D. Singh; T. Aramaki; Qingge Mu; V. Borisov; Y. Kvashnin; G. Haider; M. Jonak; D. Chareev; S. A. Medvedev; R. Klingeler; M. Mito; E. H. Abdul-Hafidh; J. Vejpravova; M. Kalbàč; R. Ahuja; Olle Eriksson; Mahmoud Abdel-Hafiez	Physical Review B	105	10.48550/arxiv.2108.00173
52	Correction to Stable Sulfuric Vapor Transport and Liquid-Sulfur Growth on Transition Metal Dichalcogenides	Dmitriy A. Chareev; Md Ezaz Hasan Khan; Debjani Karmakar; Aleksey N. Nekrasov; Maximilian S. Nickolsky; Olle Eriksson; Anna Delin; Alexander N. Vasiliev; Mahmoud Abdel-Hafiez	ACS Cryst. Growth Des.	23	10.1021/acs.cgd.3c00436
53	Strongly Correlated Exciton-Magnetization System for Optical Spin Pumping in CrBr3 and CrI3	M. Grzeszczyk; S. Acharya; D. Pashov; Z. Chen; K. Vaklinova; M. van Schilfgaarde; K. Watanabe; T. Taniguchi; K. S. Novoselov; M. I. Katsnelson; M. Koperski	Advanced Materials	35	10.1002/adma.202209513
54	Semiclassical theory for plasmons in spatially inhomogeneous media	Reijnders, K. J. A.; Tudorovskiy, T.; Katsnelson, M. I.	Annals of Physics	446	10.48550/arxiv.2206.08836
55	Tuning skyrmions in B20 compounds by 4d and 5d doping	Vladislav Borisov; Qichen Xu; Nikolaos Ntallis; Rebecca Clulow; Vitalii Shtender; Johan Cedervall; Martin Sahlberg; Kjartan Thor Wikfeldt; Danny Thonig; Manuel Pereiro; Anders Bergman; Anna Delin; Olle Eriksson	Physical Review Materials	6	10.1103/physrevmaterials.6.084401
56	Orbital ordering and quasi-two-dimensional magnetism in $A{\mathrm{MnF}}_{4} (A=\mathrm{K},\mathrm{Rb})$: A first-principles study	Anuroopa Behatha; Tulika Maitra; Alexander N. Rudenko; V. Kanchana	Physical Review B	106	10.1103/physrevb.106.024409
57	Compatibility relationships in van der Waals quasicrystals	Guodong Yu; Yunhua Wang; Mikhail I. Katsnelson; Hai-Qing Lin; Shengjun Yuan	Physical Review B	106	10.1103/physrevb.106.075121
58	Formation and Polymorphism of Semiconducting K₂SiH₆ and Strategy for Metallization	Olga Yu. Vekilova; Doreen C. Beyer; Shrikant Bhat; Robert Farla; Volodymyr Baran; Sergei I. Simak; Holger Kohlmann; Ulrich Häussermann; Kristina Spektor	ACS Inorganic Chemistry	62	10.1021/acs.inorgchem.2c04370

59	Coexisting charge density wave and ferromagnetic instabilities in monolayer InSe	Viktor Harkov; Mikhail Katsnelson; Evgeny Stepanov; Alexander Rudenko; Alexander Lichtenstein; Malte Rösner	Npj Computational Materials	8	10.1038/s41524-022-00798-4
60	Degenerate plaquette physics as key ingredient of high-temperature superconductivity in cuprates	Michael Danilov; Erik G. C. P. van Loon; Sergey Brener; Sergei Iskakov; Mikhail I. Katsnelson; Alexander I. Lichtenstein	Npj Quantum Materials	7	10.48550/arxiv.2107.11344
61	Orbital memory from individual Fe atoms on black phosphorus	Brian Kiraly; Elze J. Knol; Alexander N. Rudenko; Mikhail I. Katsnelson; Alexander A. Khajetoorians	Physical Review Research	4	10.48550/arxiv.2204.06915
62	The interplay of local electron correlations and ultrafast spin dynamics in fcc Ni	Lojewski, Tobias; Elhanoty, Mohamed F.; Le Guyader, Loic; Granaes, Oscar; Agarwal, Naman; Boeglin, Christine; Carley, Robert; Castoldi, Andrea; David, Christian; Deiter, Carsten; Doering, Florian; Engel, RobinY; Erdinger, Florian; Fangohr, Hans; Fiorini, Carlo; Fischer, Peter; Gerasimova, Natalia; Gort, Rafael; deGroot, Frank; Hansen, Karsten; Hauf, Steffen; Hickin, David; Izquierdo, Manuel; Van Kuiken, Benjamin E.; Kvashnin, Yaroslav; Lambert, Charles-Henri; Lomidze, David; Maffessanti, Stefano; Mercadier, Laurent; Mercurio, Giuseppe; Miedema, Piter S.; Ollefs, Katharina; Pace, Matthias; Porro, Matteo; Rezvani, Javad; Roesner, Benedikt; Rothenbach, Nico; Samartsev, Andrey; Scherz, Andreas; Schlappa, Justina; Stamm, Christian; Teichmann, Martin; Thunström, Patrik; Turcato, Monica; Yaroslavtsev, Alexander; Zhu, Jun; Beye,	Materials Research Letters	11	10.6084/m9.figshare.22800577.v1
63	Heat-conserving three-temperature model for ultrafast demagnetization in nickel	M. Pankratova; I. P. Miranda; D. Thonig; M. Pereiro; E. Sjöqvist; A. Delin; O. Eriksson; A. Bergman	Physical Review B	106	10.1103/physrevb.106.174407
64	Plasmon-magnon interactions in two-dimensional honeycomb magnets	Sayandip Ghosh; Guido Menichetti; Mikhail I. Katsnelson; Marco Polini	Physical Review B	107	10.1103/physrevb.107.195302
65	Influence of strain on an ultrafast phase transition	Shaozheng Ji; Oscar Grånäs; Amit Kumar Prasad; Jonas Weissenrieder	Nanoscale	15	10.1039/d2nr03395j
66	Multi-band D-TRILEX approach to materials with strong electronic correlations	Vandelli, Matteo; Kaufmann, Josef; El-Nabulsi, Mohammed; Harkov, Viktor; Lichtenstein, Alexander I.; Stepanov, Evgeny A.	SciPost Physics	13	10.48550/arxiv.2204.06426
67	Electron-beam induced emergence of mesoscopic ordering in layered MnPS$_{3}$	Kevin M. Roccapriore; Nan Huang; Mark P. Oxley; Vinit Sharma; Timothy Taylor; Swagata Acharya; Dimitar Pashov; Mikhail I. Katsnelson; David Mandrus; Janice L. Musfeldt; Sergei V. Kalinin	ACS Nano	16	10.1021/acsnano.2c06253
68	Entanglement duality in spin-spin interactions	Vahid Azimi-Mousolou; Anders Bergman; Anna Delin; Olle Eriksson; Manuel Pereiro; Danny Thonig; Erik Sjöqvist	Physical Review A	106	10.48550/arxiv.2203.12727
69	Quantum Spin Hall States and Topological Phase Transition in Germanene	Pantelis Bampoulis; Carolien Castenmiller; Dennis Klaassen; Jelle van Mil; Yichen Liu; Cheng-cheng Liu; Yugui Yao; Motohiko Ezawa; Alexander Rudenko; Harold Zandvliet	Physical Review Letters	130	10.1103/physrevlett.130.196401
70	Comment on "Nonlinear elasticity of prestressed single crystals at high pressure and various elastic moduli"	O. M. Krasilnikov; Yu. Kh. Vekilov; S. I. Simak	Physical Review B	105	10.1103/physrevb.105.226101
71	Polarization-Dependent Selection Rules and Optical Spectrum Atlas of Twisted Bilayer Graphene Quantum Dots	Yunhua Wang; Guodong Yu; Malte Rösner; Mikhail I. Katsnelson; Hai-Qing Lin; Shengjun Yuan	Physical Review X	12	10.1103/physrevx.12.021055
72	Nonlocal correlation effects due to virtual spin-flip processes in itinerant electron ferromagnets	Sebastian Paischer; Giovanni Vignale; Mikhail I. Katsnelson; Arthur Ernst; Paweł A. Buczek	Physical Review B	107	10.1103/physrevb.107.134410