

# Zsolt Gulacsi

## List of Publications by Year in descending order

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85  
papers

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586496

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88  
all docs

88  
docs citations

88  
times ranked

236  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin-orbit interactions may relax the rigid conditions leading to flat bands. Physical Review B, 2022, 105, .	1.1	0
2	Nanograin ferromagnets from nonmagnetic bulk materials: The case of gold nanoclusters. International Journal of Modern Physics B, 2021, 35, 2150148.	1.0	1
3	Itinerant surfaces with spin-orbit couplings, correlations and external magnetic fields: exact results. Philosophical Magazine Letters, 2019, 99, 118-125.	0.5	1
4	Exact results relating spin-orbit interactions in two-dimensional strongly correlated systems. Philosophical Magazine, 2018, 98, 1708-1730.	0.7	2
5	Emergence of ferromagnetism in conducting polymers in the presence of lattice vibrations. Modern Physics Letters B, 2016, 30, 1650335.	1.0	1
6	Electron-phonon interactions in conducting polymers. Philosophical Magazine Letters, 2016, 96, 67-75.	0.5	4
7	Pentagon chain in external fields. Philosophical Magazine, 2015, 95, 3674-3695.	0.7	6
8	An extension to flat band ferromagnetism. Modern Physics Letters B, 2014, 28, 1450220.	1.0	3
9	Flat band ferromagnetism without connectivity conditions in the flat band. Europhysics Letters, 2014, 107, 57005.	0.7	2
10	Exact ferromagnetic ground state of pentagon chains. Philosophical Magazine Letters, 2014, 94, 269-277.	0.5	9
11	Exact ground state for the four-electron problem in a 2D finite honeycomb lattice. Philosophical Magazine, 2014, 94, 2195-2223.	0.7	0
12	Interaction-created effective flat bands in conducting polymers. European Physical Journal B, 2014, 87, 1.	0.6	9
13	EXACT GROUND STATES OF CORRELATED ELECTRONS ON PENTAGON CHAINS. International Journal of Modern Physics B, 2013, 27, 1330009.	1.0	14
14	Exact results for non-integrable systems. Journal of Physics: Conference Series, 2013, 410, 012011.	0.3	1
15	Magnetic nano-grains from a non-magnetic material: a possible explanation. IOP Conference Series: Materials Science and Engineering, 2013, 47, 012048.	0.3	3
16	The emergence domain of an exact ground state in a non-integrable system: the case of the polyphenylene type of chains. Philosophical Magazine, 2012, 92, 4657-4675.	0.7	5
17	Ferromagnetism without flat bands in thin armchair nanoribbons. European Physical Journal B, 2010, 75, 511-525.	0.6	6
18	Route to Ferromagnetism in Organic Polymers. Physical Review Letters, 2010, 105, 266403.	2.9	46

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19	Correlation and confinement induced itinerant ferromagnetism in chain structures. Philosophical Magazine, 2009, 89, 1953-1974.	0.7	13
20	Delocalization effect of the Hubbard repulsion in exact terms and two dimensions. Physical Review B, 2008, 77, .	1.1	15
21	Exact Many-Electron Ground States on Diamond and Triangle Hubbard Chains. Progress of Theoretical Physics Supplement, 2008, 176, 1-21.	0.2	27
22	Exact Many-Electron Ground States on the Diamond Hubbard Chain. Physical Review Letters, 2007, 99, 026404.	2.9	56
23	Quadratic operators used in deducing exact ground states for correlated systems: ferromagnetism at half-filling provided by a dispersive band. Journal of Physics Condensed Matter, 2007, 19, 386209.	0.7	3
24	Third International Summer School on Strongly Correlated Systems held in Debrecen, 6â€“11 September 2004. Philosophical Magazine, 2006, 86, 1789-1791.	0.7	0
25	Exact stripe, checkerboard, and droplet ground states in two dimensions. Physical Review B, 2006, 73, .	1.1	23
26	Four electrons in a two-leg Hubbard ladder: exact ground states. Journal of Physics A, 2005, 38, 10273-10286.	1.6	3
27	Exact ground states of the periodic Anderson model in $D=3$ dimensions. Physical Review B, 2005, 72, .	1.1	30
28	Exact multielectronic electron-concentration-dependent ground states for disordered two-dimensional two-band systems in the presence of disordered hoppings and finite on-site random interactions. Physical Review B, 2004, 69, .	1.1	24
29	Exact ground state for the generic periodic Anderson model around half-filling. Philosophical Magazine Letters, 2004, 84, 405-410.	0.5	2
30	Exact Insulating and Conducting Ground States of a Periodic Anderson Model in Three Dimensions. Physical Review Letters, 2003, 91, 186401.	2.9	40
31	Plaquette operators used in the rigorous study of ground states of the periodic Anderson model in $D=2$ dimensions. Physical Review B, 2002, 66, .	1.1	18
32	Magnetic Properties of the Infinitely Repulsive Hubbard Model Near Half Filling. European Physical Journal D, 2002, 52, 119-122.	0.4	0
33	$\chi(T) \sim T^{-1}$ properties of the infinitely repulsive Hubbard model for an arbitrary number of holes. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 321-339.	0.6	2
34	Exact solution for a chain-like cluster growth model for a finite particle size. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 21-34.	0.6	0
35	Phase diagram regions deduced for strongly correlated systems via unitary transformation. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 341-358.	0.6	3
36	Exact solution for a chain-like cluster growth model for a finite particle size. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 21-34.	0.6	0

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37	Phase diagram regions deduced for strongly correlated systems via unitary transformation. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 341-358.	0.6	0
38	International summer school on strongly correlated systems held in debrecen, 4-9 september 2000: Foreword. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 1331-1333.	0.6	1
39	The $U = \hat{\alpha}$ Hubbard model with few holes: Monte Carlo studies near half-filling at non-zero temperatures. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 1621-1627.	0.6	1
40	Study of the t-J model in the low-density limit. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 1557-1564.	0.6	2
41	Exact results for the one-dimensional periodic Anderson model at finite $U$ . The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 1587-1596.	0.6	19
42	New non-Fermi-liquid-type behaviour by a two-band system in normal phase. Journal of Physics A, 2001, 34, L359-L366.	1.6	16
43	Exact solutions for the periodic Anderson model in two dimensions: A non-Fermi-liquid state in the normal phase. Physical Review B, 2001, 64, .	1.1	33
44	Theory of phase transitions in two-dimensional systems. Advances in Physics, 1998, 47, 1-89.	35.9	52
45	Correlation transitions in the Ising chain with competing short-range and long-range mirror interactions. Physical Review E, 1998, 58, 5403-5409.	0.8	5
46	Exact results related to the periodic Anderson model in $D \gg 1$ dimensions. Philosophical Magazine Letters, 1998, 78, 177-184.	0.5	16
47	Superconductivity in the extended hubbard model with more than nearest-neighbour contributions. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 76, 911-928.	0.6	4
48	Exact results related to the periodic Anderson model in the strong-coupling $U = \hat{\alpha}$ limit. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 76, 845-848.	0.6	3
49	Possible d-like symmetry pairing states in the extended Hubbard model. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 76, 833-837.	0.6	1
50	Hubbard model with next-nearest-neighbour interaction terms in higher dimensions: New, exactly solvable cases. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 76, 827-831.	0.6	1
51	Solution of a Chain-Like Ising Spin Cluster Model. International Journal of Modern Physics B, 1997, 11, 115-119.	1.0	1
52	Exact phase diagram for extended Hubbard model in $D > 1$ dimensions with next-nearest-neighbor interaction terms. European Physical Journal D, 1996, 46, 2643-2644.	0.4	0
53	Hidden ordering effects in $D=1$ dimensional ising model with mirror-image type interactions. European Physical Journal D, 1996, 46, 1911-1912.	0.4	0
54	Superconducting phases of the extended Hubbard model for doped systems. European Physical Journal D, 1996, 46, 609-610.	0.4	1

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55	Exact partition and pair-correlation functions for an Ising model with mirror-image-type interactions. Physical Review B, 1996, 53, 2326-2333.	1.1	2
56	Exact Solution for a Chainlike Cluster Growth Model. Physical Review Letters, 1994, 73, 3239-3242.	2.9	10
57	BCS superconductivity in a mixed valence compound. Solid State Communications, 1994, 90, 51-55.	0.9	4
58	Diagrammatic expansion of a $\hat{t}^4$ theory and lattice models with local interactions up to eighth order. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1994, 69, 437-460.	0.6	5
59	High-order perturbation expansion for the two-dimensional Hubbard model using the Gutzwiller wave function. Physical Review B, 1993, 47, 4168-4173.	1.1	10
60	Accurate variational results for the symmetric periodic Anderson model in one, two, and three dimensions. Physical Review B, 1993, 47, 8594-8604.	1.1	21
61	Analytic description of the Hubbard model in D dimensions with the Gutzwiller wave function. Physical Review B, 1991, 44, 1475-1479.	1.1	12
62	Bound electron pairs in the presence of charge confinement. Physical Review B, 1990, 42, 3981-3986.	1.1	4
63	Tc enhancement in superconductor and spin-density-wave coexistence. Physical Review B, 1989, 39, 714-717.	1.1	6
64	Superconductivity and spin-density waves in heavy-fermion systems. Physical Review B, 1989, 39, 12352-12354.	1.1	5
65	In-plane impurities in superconducting layered systems. Physical Review B, 1989, 40, 708-711.	1.1	3
66	Enhancement of the superconducting critical temperature in layered compounds. Physical Review B, 1988, 37, 2247-2250.	1.1	19
67	Spin-density waves in heavy-fermion compounds: A theoretical study. Physical Review B, 1987, 36, 699-708.	1.1	16
68	Charge density waves in heavy fermion systems. Solid State Communications, 1987, 64, 1075-1078.	0.9	3
69	The eigenvalues spectra of octahedral invariant tensor operator combinations up to eighth rank. Journal of Molecular Spectroscopy, 1986, 118, 424-433.	0.4	1
70	Study of the rotational splitting of UF <sub>6</sub> molecule. Journal of Molecular Structure, 1986, 142, 83-85.	1.8	0
71	A comparative study of CH <sub>4</sub> and CD <sub>4</sub> rotational splitting using high order invariant tensor operators. Journal of Molecular Structure, 1986, 142, 87-89.	1.8	0
72	Internal-field distribution in spin-glasses with dipolar interactions. Physical Review B, 1986, 33, 3483-3491.	1.1	5

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73	Theory of coexistence between itinerant-electron antiferromagnetism and superconductivity. <i>Physical Review B</i> , 1986, 33, 6147-6156.	1.1	24
74	The superconducting transition temperature for $\text{La}_{1-x}\text{Gd}_x$ . <i>Journal of Low Temperature Physics</i> , 1985, 60, 19-27.	0.6	1
75	Model to study a possible superconducting phase in heavy fermion systems and its NMR signal. <i>Solid State Communications</i> , 1985, 56, 1059-1061.	0.9	6
76	Multiphoton-absorption study of the SF6 molecules as function of the initial rotation state. <i>Journal of Molecular Structure</i> , 1984, 115, 469-472.	1.8	1
77	Spin-glass state with short-range interaction in a superconductor. <i>Journal of Low Temperature Physics</i> , 1983, 50, 371-378.	0.6	6
78	Short-range spin-glass model with discrete bonds. <i>Physical Review B</i> , 1983, 27, 5747-5760.	1.1	3
79	Metastability region in spin-glasses. <i>Physical Review B</i> , 1983, 28, 6476-6480.	1.1	2
80	The nuclear relaxation rate for the itinerant-electron antiferromagnet. <i>Canadian Journal of Physics</i> , 1982, 60, 649-653.	0.4	1
81	The phase diagram of the antiferromagnetic superconductor. <i>Physica B: Physics of Condensed Matter &amp; C: Atomic, Molecular and Plasma Physics, Optics</i> , 1981, 108, 1049-1050.	0.9	0
82	Theory of orbital ferromagnetism in two-band systems. <i>Physical Review B</i> , 1981, 24, 2603-2607.	1.1	0
83	Spin-glass-like behavior of dilute Cr-Er and Cr-Yb alloys. <i>Physical Review B</i> , 1981, 24, 1350-1359.	1.1	6
84	Effect of Nonmagnetic Impurities on the Néel Temperature of Chromium. <i>Physica Status Solidi (B): Basic Research</i> , 1980, 98, 105-109.	0.7	4
85	On the phase diagram of the impure exciton ferromagnet. <i>Solid State Communications</i> , 1980, 35, 983-985.	0.9	1