

- გიორგი ჯაფარიძე პუბლიკაციების ვრცელი სია

1. M. Di Liberto, D. Malpetti, G.I. Japaridze C. Morais Smith, “Ultracold fermions in a one-dimensional bipartite optical potential: metal-insulator transitions driven by shaking” Phys. Rev. A 90, 023634 (2014). ArXiv/1405/4756
2. M. Eliashvili, G.I. Japaridze, G. Tsitsishvili, and G. Tukhashvili, “Edge states in 2D lattices with hopping anisotropy and Chebyshev polynomials”, Jour. of Phys. Soc. Japan 83, 044706 (2014). ArXiv/1401/6770
3. M. Di Liberto, C. E. Creffield, G. I. Japaridze C. Morais Smith. “Quantum simulation of correlated-hopping models with fermions in optical lattices” Phys. Rev. A 89, 013624 (2014). ArXiv/1310.7959
4. M. Shahri Naseri, G. I. Japaridze, S. Mahdavifar and S. Farjami Shayesteh, “Quantum phase transition in a dimerized chain with hexamer distortion”, Phys. Status Solidi B v.250, 238 (2013).
5. N. Avalishvili and G.I. Japaridze, “Magnetic phase diagram of a spin antiferromagnetic $S=1/2$ ladder with alternating rung exchange and dimerized legs”, Nano Studies v.6, 85-92 (2012).
6. Merab Eliashvili, George I. Japaridze, and George Tsitsishvili, “Quantum group, Harper equation and the structure of Bloch eigenstates on a honeycomb lattice”, Jour. of Physics A: Math. Gen. v.45, 305305 (2012). ArXiv/1203.2579
7. N. Avalishvili, G. I. Japaridze, D. Nozadze and S. Mahdavifar, "Magnetization plateau in the spin $S=1/2$ two-leg ladder with trimer modulation of the rung-exchange", Bulletin of the Georgian National Academy of Sciences, v6, N2, 53-61 (2012).
8. Merab Eliashvili, George I. Japaridze, and George Tsitsishvili, “Quantum group on a honeycomb lattice”, Proceedings of the Georgian mathematical Institute v 160 38-51 (2012).
9. M. Shahri Naseri, G. I. Japaridze, S. Mahdavifar and S. Farjami Shayesteh, “Magnetic properties of the spin $S=1/2$ Heisenberg chain with hexamer modulation of exchange”, Jour. Phys. C: Condens. Matt. v. 24, 116002 (2012). Arxiv/1110.4467.
10. Mariana Malard, Inna Grusha, G. I. Japaridze and Henrik Johannesson, “Modulated Rashba interaction in a quantum wire: Spin and charge dynamics” Phys. Rev. B 84, 075466 (2011).
11. Gia-Wei Chern, N. Perkins and George I. Japaridze, “Quantum criticality of vanadium chains with strong relativistic spin-orbit interaction” Phys. Rev. B 82, 172408 (2010).
12. Zoran Ristivojevic, George I. Japaridze and Thomas Nattermann, “Spin-filtering by field dependent resonant tunnelin” Phys. Rev. Lett. 104, 076401 (2010) ArXiv/0909.0025
13. T. Jonckheere , G.I. Japaridze, T. Martin, and R. Hayn “*Transport through a band insulator with Rashba spin-orbit coupling:metal-insulator transition and spin-filtering effects*”, Phys. Rev. B 81, 165443 (2010).
14. G.I. Japaridze, Henrik Johannesson, and Alvaro Ferraz “*Metal-insulator transition in a quantum wire driven by a modulated Rashba spin-orbit coupling*”, Phys. Rev. B 80, 041308(R) (2009).
15. G.I. Japaridze and Saeed Mahdavifar, “Magnetic phase diagram of the spin $S=1/2$ ladder with rung-exchange dimerization” , Eur. Phys. J. B 68, 59-66 (2009) . ArXiv/0902.0260
16. G.I. Japaridze and Saeed Mahdavifar, “*Magnetic phase diagram of a spin antiferromagnetic $S=1/2$ ladder with alternating rung exchange*”, Bulletin of the Georgian National Academy of Sciences, v. 2, N4, 62-69 (2008).
17. M. Menteshashvili, N. Chachava and G.I. Japaridze, “Effective Hamiltonian for a half-filled tetramerized ionic-Hubbard chain” Bulletin of the Georgian National Academy of Sciences, v. 2, p. 67 (2008).
18. L. Craco, P. Lombardo, R. Hayn, G.I. Japaridze, E. Müller-Hartmann “Electronic phase transitions in the half-filled ionic Hubbard model”, Phys. Rev. B 78, 075121 (2008).

19. G.I. Japaridze, R.M. Noack, D. Baeriswyl and L. Tincani, "*Phases and phase transitions in the half-filled t - t' Hubbard chain*", Phys. Rev. B 76, 115118 (2007).
20. G.I. Japaridze, R. Hayn, P. Lombardo and E. Mueller-Hartmann, "*Band-Insulator-Metal-Mott-Insulator transition in the half-filled t - t' ionic-Hubbard chain*", Phys. Rev. B 75, 245122 (2007).
21. G.I. Japaridze, A. Langari and S. Mahdaviifar, "*Spin ladder with anisotropic ferromagnetic legs in a transverse magnetic field*", Jour. Phys. C: Cond. Matt. v. 19, 9297-9306 (2007).
22. G.I. Japaridze and E. Pogosyan "*Mean-field phase diagram of the half-filled Hubbard chain with alternating on-site interaction*" Proc. Georg. Acad. of Sciences v. 139. N2 (2006).
23. G.I. Japaridze and E. Pogosyan "*Magnetization plateau in the spin $S=1/2$ ladder with alternating rung exchange*" Jour. Phys. C: Cond. Matt. v. 18, 9297-9306 (2006).
24. P. Lombardo, R. Hayn and G.I. Japaridze, "*Insulator-metal-insulator transition and selective spectral weight transfer in a disordered strongly correlated system*", Phys. Rev. B 74, 085116 (2006).
25. G.I. Japaridze, R.M. Noack and D. Baeriswyl, "Nature of the metal-insulator transition in the half-filled t - t' Hubbard chain".
26. C. Dziurzik, G.I. Japaridze, A. Schadschneider, I. Titvinidze and J. Zittartz, "*Triplet superconductivity in a 1D itinerant electron system with trasverse spin anisotropy*" Eur. Phys. J. B 51, pp. 41-51 (2006).
27. M.E. Torio, A.A. Aligia, G.I. Japaridze and B. Normand, "*Quantum phase diagram of the generalized ionic Hubbard model for AB_n chains*", Phys. Rev. B 73, 115109 (2006).
28. T.Vekua, G.I. Japaridze and H.J. Mikeska, "*Phase diagrams of spin ladders with ferromagnetic legs in a magnetic field*" Phys. Rev. B v. 70, 014425 (2004).
29. P. Kakashvili and G.I. Japaridze, "*Effective Hamiltonian for a half-filled Hubbard chain with alternating interactions*" Jour. Phys. C: Cond. Matt. v. 16, 5815-5823 (2004).
30. Irakli Titvinidze and G.I. Japaridze, "*Correlation functions in the spin $S=1/2$ Extended XY model*" Proc.Geor.Acad.Sci, v. 163, p.501, (2004).
31. C. Dziurzik, G.I. Japaridze, A. Schadschneider, and J. Zittartz, "*Triplet superconductivity vs easy-plane Ferromagnet in a 1D itinerant electron system with trasverse spin anisotropy*" Eur. Phys. J. B v.37, 453-463 (2004).
32. H. Johannesson and G.I. Japaridze, "*Pairing and Density Correlations of Stripe Electrons in a Two-Dimensional Antiferromagnet*" Phys. Rev. B 68, 214507 (2003).
33. A.P. Kampf, M. Sekania, G.I. Japaridze, and Ph. Brune, "*Nature of the insulating phases in the half-filled ionic Hubbard model*" Jour. Phys. C: Cond. Matt. v. 15, 5895-5907 (2003).
34. Irakli Titvinidze and G.I. Japaridze, "*Phase Diagram of the spin $S=1/2$ Extended XY model*" Eur. Phys. J. B v.32, 383-393 (2003).
35. G.I. Japaridze, Sujit Sarkar, "*Phase Diagram of the Extended Hubbard Model with Pair Hopping Interaction*". Eur. Phys. J. B v.28, 139-144 (2002).
36. G.I. Japaridze, A.P. Kampf, M.Sekania, P. Kakashvili and Ph. Brune "*Local pair superconductivity in one-dimensional electron system with pair hopping interaction*" Phys. Rev. B v. 65, 014518-014527 (2002).
37. Ph. Brune, G.I. Japaridze, A.P. Kampf, and M. Sekania, "*Phase diagram and optical conductivity of the ionic Hubbard model*" Preprint Cond-Mat/0106007.
38. G.I. Japaridze and E. Mueller-Hartmann, "*Triplet superconductivity in a one-dimensional ferromagnetic t - J model*" Phys. Rev. B v. 61, 9019-9027 (2000).
39. G.I. Japaridze and T. Vekua, "*The weak-coupling phase diagram of the one-dimensional electron system with $U(1)$ -symmetric correlated-hopping interactions*" Proceedings of the ISPM-98, pages 139-152 Tbilisi, 5-18.09.1998.

40. G. Japaridze and E. Mueller-Hartmann, "*Bond-located ordering in the one-dimensional Penson-Kolb-Hubbard model*", Journal of Physics C: Cond.Matt. v.9, N47, 10509-10519, (1997).
41. G. Jackeli and G.I. Japaridze "*Renormalization group approach to the one-dimensional Hubbard model with alternating interaction*", Int. Jour. Mod. Phys. B v.11, 1925-1936, (1997).
42. G. Bouzerar and G.I. Japaridze, " *η -superconductivity in the one-dimensional Penson-Kolb model*", Zeit. f. Physik B, v.104, 215-219, (1997).
43. G. Bouzerar and G.I. Japaradze " *η -superconductivity in the one-dimensional pair-hopping model*", Proceedings of the International Conference "SIMI-96", Tbilisi, 1996. Cond.Mat-9605161. (1996)
44. G.I. Japaridze and E. Mueller-Hartmann, "*Electrons with with Alternating On--Site and Correlated Hopping Interactions*", Annalen der Physik, v.3, 392-407, (1994).
45. G.I. Japaridze, D. Khomskii and E. Mueller-Hartmann, "*The one-dimensional 1/4-filled Hubbard model with non-equal on-site interaction on even and odd sites*", Annalen der Physik, v.2, 38, (1993).
46. A.A. Nersesyan, G.I. Japaridze and I.G. Kimeridze, "*Low-temperature magnetic properties of the two-dimensional spin nematic*", Journal of Physics C: Cond.Matt., v.3, 3353, (1991).
47. Г.И. Джапаридзе, А.А. Нерсесян, "*1/N-expansion from the Bethe-ansatz solution of the SU(N)-symmetric Gross-Neveu model in the large-N limit*" Proc.Geor.Acad.Sci., v. 88, p.501, (1988).
48. G.I. Japaridze and A.A. Nersesyan, "*1/N-expansion in the Bethe-ansatz solution of the two-dimensional chiral-invariant SU(N)- Gross-Neveu model*", Proceedings of the International Conference "Electronics of Organic Materials (ELORMA)", Tashkent, 16-21.11.1987, p.68. (1986)
49. G.I. Japaridze, "*'Magnetic' properties of the two dimensional chiral SU(3)-symmetric Gross-Neveu model*" Preprint TP-1, Institute of Physics, Tbilisi, (1986).
50. G.I. Japaridze, A.A. Nersesyan and P.B. Wiegmann, "*Exact results in two-dimensional U(1)-Thirring model*", Nuclear Physics B, v.230, FS10, 511, (1984).
51. Г.И. Джапаридзе, "*Магнитные свойства одномерной системы взаимодействующих фермионов. Точно решаемые модели.*" Кандидатская диссертация Тбилиси (1983).
52. G.I. Japaridze, A.A. Nersesyan and P.B. Wiegmann, "*Regularized integrable version of one-dimensional quantum Sine-Gordon model*", Physica Scripta, v.27, 5, (1983).
53. G.I. Japaridze and A.A. Nersesyan, "*Excitation spectrum and low-temperature thermodynamics of one-dimensional interacting Fermi system*", Phys.Letters A, v.94, 224, (1983).
54. G.I. Japaridze and A.A. Nersesyan, "*Low-temperature thermodynamics of one-dimensional interacting fermions*", Jour. Low Temp. Phys. v.47, 91, (1982).
55. G.I. Japaridze and A.A. Nersesyan, "*Magnetic properties of one-dimensional interacting fermions*", Phys.Letters A, v.85, 23 (1981).
56. G.I. Japaridze and A.A. Nersesyan, "*One dimensional electron system with attraction in magnetic field*", Jour. Low Temp. Phys., v.37, 95, (1979).
57. G.I. Japaridze and A.A. Nersesyan, "Application of renormalization-group method to the problem of one-dimensional electron system in a magnetic field", Proc.Geor.Acad.Sci., v. 88, p.501, (1978).