

LIST OF PUBLICATIONS

I. Papers published in refereed journals

1. **Theory of reorientation transitions in plates** (M.I. Kaganov and A.C.), Sov. Phys. JETP **55**, 937, 1982.
2. **Effects of surface energy on the domain structure in spin reorientation transition**, Sov. Phys. Solid State, **24**, 1399, 1982.
3. **Role of the surface energy in phase transitions with two order parameters** (E.M. Terentjev, A.N. Semionov and A.C.), Sov. Phys. Solid State **24**, 2111, 1982.
4. **Spin waves in noncollinear ferromagnetic structures at $T=0$** , Sov. Phys. JETP **58**, 765, 1983.
5. **Electromagnetic wave emission in parametric excitations of magnons in antiferromagnets** (A.S. Mikhailov and A.C.) Sov. Phys. JETP **59**, 819, 1984.
6. **On the quantum effects in helimagnets**, J.Phys. **C17**, L991, 1984.
7. **Orientalional phase transitions in quantum spin systems with two-component order parameter**, Theor. Math. Phys. (USSR) **60**, 728, 1984.
8. **Low-temperature critical behavior of quantum spin systems**, Sov. J. Low Temp. Phys. **10**, 197, 1984.
9. **Nonlinear spin-wave theory for ferromagnetic spin chains with easy-plane anisotropy**, Sov. J. Low Temp. Phys. **10**, 609, 1984.
10. **On the existence of long-range order in low-dimensional quantum spin systems with planar symmetry**, J. Physique **45**, 401, 1984.
11. **Low temperature properties of Heisenberg antiferromagnets with arbitrary spin**, Sov. Phys. JETP **62**, 762, 1985.
12. **Fluctuation corrections to the spectra of low-dimensional Heisenberg magnets** (Yu.A. Kosyevich and A.C.), Sov. Phys. JETP **64**, 654, 1986.
13. **Low temperature properties of ferromagnets with different-ion anisotropy and arbitrary spin** (M.I. Kaganov and A.C.) Sov. Phys. JETP **63**, 422, 1986.
14. **Spin-wave interactions in low-dimensional Heisenberg magnets** (Yu. A. Kosyevich and A. C.), JETP Lett **43**, 33, 1986.
15. **Properties of one-dimensional antiferromagnets with integer and half-integer spins** (D.V. Khveschenko and A.C.), Sov. Phys. JETP **66**, 1088, 1987.
16. **The two-magnon bound state spectrum in generalized ferromagnetic chain** (A.C. and D.V. Khveschenko), J.Phys. **C20**, L505, 1987.

17. **Interacting magnons** (M.I. Kaganov and A.C.), Sov. Phys. Usp. **30**, 1015, 1987
18. **Ferromagnetic resonance and magnetic structure of $(CH_3NH_3)_2CuCl_4$** (S.O. Demokritov, N.M. Kreines, V.I. Kudinov S.V. Petrov and A.C.), Sov. Phys. JETP **67**, 2552, 1988.
19. **Quasi-one-dimensional hexagonal antiferromagnets in a magnetic field**, J.Phys. **C21**, L441, 1988.
20. **Magnetic resonance in the noncollinear antiferromagnet $CsNiCl_3$** (with V.I. Marchenko, L.A. Prozorova, S.V. Petrov, A.C. and I.A. Zaliznyak), JETP Lett. **47**, 211, 1988.
21. **Possibility for a superfluid transition in a weakly nonideal Fermi gas with repulsion** (M. Yu. Kagan and A.C.), JETP Lett. **47**, 614, 1988.
22. **Behavior of antiferromagnets in applied magnetic fields** (D.I. Golosov and A.C.), Sov. Phys. Solid State **30**, 893, 1988.
23. **On the superfluid transition in dense electron system** (A.C. and M.Yu. Kagan), J. Phys. CM **1**, L3135, 1989.
24. **Relativistic AFMR modes in the hexagonal antiferromagnet $CsNiCl_3$** (A.C., L.A. Prozorova and I.A. Zaliznyak), J.Phys. CM **1**, L4743, 1989.
25. **A difference in the properties of 1D antiferromagnets with integer and half-integer spins**, JETP Lett. **49**, 129, 1989.
26. **Increase in the superfluid transition temperature in a polarized Fermi gas with repulsion** (M. Yu. Kagan and A.C.), JETP Lett. **50**, 517, 1989.
27. **Orientalional transitions in Heisenberg antiferromagnet on a triangular lattice** (D.I. Golosov and A.C.), JETP Lett. **50**, 451, 1989.
28. **Fluctuations in spin nematics**, J.Phys. CM **2**, 1593, 1990
29. **Unusual states in the Heisenberg model with competing interactions**, J. Phys. CM **2**, 4445, 1990.
30. **Spin reorientation in hexagonal antiferromagnets** (S. Abarzhi and A.C.), J. Phys CM **2**, L9221, 1990.
31. **Quantum theory of an antiferromagnet on a triangular lattice** (A.C. and D.I. Golosov), J. Phys. CM **3**, 69, 1991.
32. **On the excitations in a S=1 linear chain Heisenberg antiferromagnet with S=1/2 impurities** (A.V. Balatsky and A.C.), J. Phys. CM **3**, 1351, 1991.
33. **Quantum ferrimagnets** (A.C., K.I. Ivanova, P. Ch. Ivanov and E.R. Korucheva), J. Phys. CM **3**, 2665, 1991.
34. **Dimerized states in quantum spin chains**, Phys. Rev. **B43**, 3337, 1991.

35. **First order transitions in frustrated quantum antiferromagnets**, Phys. Rev B **44**, 392, 1991.
36. **Chiral, nematic and dimer states in quantum spin chains**, Phys. Rev B **44**, 4693, 1991. Rapid Comm.
37. **Two-step transitions in noncollinear magnets**, Phys. Rev B **44**, 5362, 1991. Rapid Comm.
38. **Schwinger bosons and hydrodynamics of two-dimensional magnets**, Phys. Rev B **44**, 12318, 1991.
39. **Dimer stability region in a frustrated quantum antiferromagnet** (with Th. Jolicoeur), B **44**, 12050 1991. Rapid Comm.
40. **Pairing instabilities in the 2D Hubbard model** (A.C. and J.P. Lu), Phys. Rev. B **46**, 11163 (1992).
41. **Phase diagram of the frustrated spin -1/2 Heisenberg antiferromagnet with cyclic exchange interaction** (A.C., C. Balseiro and E. Gagliano), Phys. Rev. B **45**, 7889, 1992.
42. **Pairing due to the exchange of spin fluctuations in cuprate superconductors**, Phys. Rev. B **46**, 5588 (1992).
43. **Order from disorder in a kagome antiferromagnet**, Phys. Rev. Lett., **69**, 832 (1992).
44. **Order from disorder phenomena in Heisenberg antiferromagnet on a triangular lattice** (A.C. and Th. Jolicoeur), Phys. Rev. B **46**, 11312 (1992).
45. **Renormalized perturbation theory of magnetic instabilities in the 2D Hubbard model at small doping** (A.C. and D. Frenkel), Phys. Rev. B **46** 11884 (1992).
46. **Superfluidity and Superconductivity in Fermi systems with repulsive interactions** (M.A. Baranov, A.C. and M. Yu. Kagan) Int. J. Mod. Phys, **6** 2471 (1992).
47. **Kohn-Luttinger effect and the instability of a 2D repulsive Fermi liquid at T=0**, Phys. Rev. B **48**, 1097 (1993).
48. **Universal magnetic properties of $La_{2-x}Sr_xCuO_4$ at intermediate temperatures** (A.C. and S. Sachdev), Phys. Rev. Lett. **71**, 169 (1993).
49. **Theory of p-wave pairing in a two-dimensional Fermi gas** (A.C. and A. Sokol), Phys. Rev. B **49**, 678 (1994).
50. **Theory two-dimensional quantum Heisenberg antiferromagnets with a nearly-critical ground state** (A.C., S. Sachdev and J. Ye), Phys. Rev. B **49**, 11919 (1994).
51. **Universal magnetic properties of frustrated quantum antiferromagnets in two dimensions** (A.C., S. Sachdev and T. Senthil), Phys. Rev. Lett, **72**, 2089, (1994).
52. **Universal behavior of the Spin-Echo decay rate in La_2CuO_4** (A.C., S. Sachdev and A. Sokol), Phys. Rev. B **49**, 9052 (1994).

53. **Reply to the comment by A. Millis** (A.C. and S. Sachdev), Phys. Rev. Lett., **71**, 3615 (1993).
54. **Universal magnetic properties of frustrated antiferromagnets** (A.C., S. Sachdev and T. Senthil), Nucl. Phys. B **426** [FS], 601 (1994)
55. **Systematic $1/S$ study of the 2D Hubbard model at half filling** (A.C. and K. Musaelian), Phys. Rev. B, **50**, 6238 (1994).
56. **Specific heat of single crystal YNi_2B_2C and $TmNi_2B_2C$ superconductors** (R. Movshovich, M.F. Hundley, J.D. Thompson, P.C. Canfield, B.K. Cho and A.C.), Physica C, **227**, 381 (1994).
57. **Large S expansion for quantum antiferromagnets on a triangular lattice** (A.C., S. Sachdev and T. Senthil), Journal of Physics: CM, **6**, 8891 (1994).
58. **Phases of the 2D Hubbard model at low doping** (A.C. and K.A. Musaelian), Journal of Physics: CM, **7**, L153, (1995).
59. **Magnetic Phases of the 2D Hubbard model at low doping** (A.C. and K.A. Musaelian) (long version), Phys. Rev. B, **51**, 12605 (1995).
60. **On the contrasting spin dynamics of $La_{2-x}Sr_xCuO_4$, $Nd_{2-x}Ce_xCuO_4$ and YBa_2Cu-3O_{6+x} near half filling** (A.C. and K.A. Musaelian), J. of Phys: CM, **7**, 133 (1995).
61. **Resonant two-magnon Raman scattering in Mott-Hubbard insulators** (A.C. and D. Frenkel), Phys. Rev. Lett., **74**, 3057 (1995).
62. **Resonant two-magnon Raman scattering in parent compounds of high- $T - c$ superconductors** (A.C. and D. Frenkel), Phys. Rev. B, **52** 5760, (1995).
63. **Crossover and scaling in a nearly antiferromagnetic Fermi liquid in two dimensions** (S. Sachdev, A.C. and A. Sokol), Phys. Rev. B, **51**, 14874 (1995).
64. **On the confinement of spinons in CP^{N-1} model** (A.C. and O. Starykh), Phys. Rev. B, **52**, 440 (1995).
65. **Quantum-critical behavior in a two-layer antiferromagnet** (A.C., A. Sandvik and S. Sachdev), Phys. Rev. B (RC), **51**, 16483 (1995).
66. **Phase transition, longitudinal spin fluctuations, and scaling in a two-layer antiferromagnet** (A.C. and D. Morr), Phys. Rev. B, **52**, 3521 (1995).
67. **Flat modes and shadow bands near the spin-density-wave transition**, Phys. Rev. B (RC) **52**, R3840 (1995).
68. **Mixed symmetry superconductivity in two-dimensional Fermi liquids** (A.C., J. Betouras, R. Joynt and K.A. Musaelian), Phys. Rev. B, **53**, 3598 (1996).
69. **Fermi surface evolution in underdoped cuprates** (A.C., D. Morr and K.A. Shakhnovich), Phil. Mag., **B 74**, 563 (1996).

70. **Raman Scattering in a two-layer antiferromagnet** (D. Morr, A.C., A. Kampf and G. Blumberg), Phys. Rev. B, **54**, 3468 (1996).
71. **Crossover from $O(3)$ to $O(4)$ behavior in weakly frustrated quantum antiferromagnets** (A.C. and O. Starykh), Phys. Rev. B (RC), **53**, R14729 (1996).
72. **Crossovers in underdoped cuprates** (A.C., D. Pines and B. Stoikovic), J. of Physics: CM, **8**, 10017 (1996).
73. **Electronic and magnetic properties of underdoped cuprates** (A.C. and D. Morr), Phys. Reports, **288**, 355 (1997).
74. **Vertex corrections in Antiferromagnetic Spin Fluctuation Theories** (A.C., Ph. Monthoux and D. Morr), Phys. Rev. B **56**, 7789 (1997).
75. **Electronic structure of CuO_2 planes - from insulator to superconductor** (S. La Rosa, I. Vobornik, F. Zwisk, H. Berger, M. Grioni, G. Mardaritondo, R.J Kelley, M. Onellion and A.C.), Phys. Rev. B (RC) **56**, 525 (1997).
76. **Resonant Raman scattering in antiferromagnets** (A.C. and D. Morr), Phys. Rev. B, **56**, 9134 (1997).
77. **Shadow bands in overdoped $Bi_2Sr_2CaCu_2O_{8+x}$** (S. La Rosa, R.J. Kelley, C. Kendziora, G. Mardaritondo, M. Onellion and A.C.), Solid. State Communications, **104**, 459 (1997).
78. **Luttinger theorem for a spin-density-wave insulator** (B. Altshuler, A.C., A. Finkelstein and D. Morr), Europhys. Lett., **41**, 401 (1998).
79. **On the dispersion of a single hole in a quantum antiferromagnet** (A.C. and D. Morr), Phys. Rev. B, **57** 5298 (1998).
80. **Theory of the leading edge gap in underdoped cuprates**, Europhys. Lett. **44**, 655 (1998).
81. **Temperature variation of the pseudogap in cuprates** (with J. Schmalian), Phys. Rev. B (RC), **57** 11085 (1998).
82. **Spectral function of superconducting cuprates near optimal doping** (with D. Morr) Phys. Rev. Lett. **81**, 4716 (1998).
83. **Evolution of the quasiparticle spectral function in cuprates** (with S. Misra et al), Phys. Rev. B **58**, R8905 (1998).
84. **On the behavior of a 2D Heisenberg antiferromagnet at very low temperatures** (with O. Starykh) J. Physics Cond. Matter, **11**, L169 (1999).
85. **Electronic Raman scattering in superconducting cuprates** (with D. Morr and G. Blumberg), Solid State Comm. **112**, 193 (1999).
86. **A relation between the resonance neutron peak and ARPES data in cuprates** (with Ar. Abanov), Phys. Rev. Lett., **83**, 1652, (1999).

87. **Coherent vs incoherent pairing in cuprates** (with Ar. Abanov and A. Finkelstein), Europhys. Lett. **54**, 488 (1999).
88. **Condensation energy in a spin-fermion model for cuprates** (with A. Abanov), Phys. Rev. B (RC) **62**, R787 (2000).
89. **SIN and SIS tunneling in cuprates** (with A. Abanov) Phys. Rev. B (RC) **61**, R9241 (2000) .
90. **On the relative positions of the 2Δ peaks in Raman and tunneling spectra of d-wave superconductors** (with A. Abanov and N. Gemelke) Phys. Rev. B (RC) **61**, R6467 (2000).
91. **Spin-fermion model near the quantum critical point: one-loop renormalization group results** (with Ar. Abanov) Phys. Rev. Lett, **84**, 5608 (2000).
92. **Quantum-critical superconductivity in underdoped cuprates** (with Ar. Abanov and J. Schmalian), Europhys. Lett **53**, 369 (2001).
93. **Dispersion of the neutron resonance in cuprate superconductors** (with B. Janko and O. Tchernyshov), Phys. Rev. B RC **63**, 0507 (2001).
94. **Where is the π resonance?** (with M. Norman and O. Tchernyshov), Phys. Rev. B **63**, 4507 (2001).
95. **Spectral function and conductivity in the normal state of cuprates** (with Ar. Abanov and R. Haslinger), Phys. Rev. B (RC) **63**, 020503(R) (2001).
96. **Fine structures in the optical response of cuprates due to spin-fermion coupling** (with Ar. Abanov and J. Schmalian), Phys. Rev. B (RC) **63**, 0510 (2001).
97. **Quantum-critical theory of the spin-fermion model and its application to the cuprates. I - normal state analysis** (with Ar. Abanov and J. Schmalian), Advances in Physics, (2003) to appear.
98. **A novel spin wave expansion, finite temperature corrections and order from disorder effects in the double exchange model.** (with Nic Shannon), Phys. Rev. B **65**, 104418 (2002)
99. **Order from disorder in double-exchange ferromagnets** (with Nic Shannon), J. Phys. Condens. Matt, **14**, L235-241 (2002).
100. **EDC ARPES in the normal state of the cuprates: comparing the marginal Fermi liquid and spin fluctuations.** (with Ar. Abanov and R. Haslinger), Europhys. Lett., (2002) accepted for publication.
101. **The differential sum rule for the relaxation rate in the cuprates** (with Ar. Abanov), Phys. Rev. Lett., **88**, 217001 (2002).

102. **The neutron resonance in the cuprates and its effect on fermionic excitations (What the resonance peak can do)** (with M. Norman et al), Phys. Rev. Lett., **89**, 177002 (2002).
103. **The condensation energy in strongly coupled superconductors** (with R. Haslinger), Phys. Rev. Lett, submitted.
104. **First order superconducting transition near a ferromagnetic quantum critical point** (with A. M. Finkel'stein, R. Haslinger, and D. K. Morr), Phys. Rev. Lett, submitted.
105. **Singular corrections to the Fermi liquid theory** (with D. Maslov) in preparation.
106. **The condensation energy in strongly coupled superconductors - the difference between phonon and spin mediated superconductors** (long paper) (with R. Haslinger), in preparation.
107. **Spin-fluctuation theory for nodal quasiparticles** (with O. Tchernyshov), in preparation.
108. **Pseudogap in strongly coupled phonon superconductors** (with A. Abanov, B. Altshuler and E. Yuzbashyan), in preparation.

II Invited papers published in conference proceedings and invited chapters in books

1. **Spin waves in magnetic dielectrics** (with M.I. Kaganov), in *Magnetic Excitations* (A.A. Maradudin and V.M. Agranovich eds.), North-Holland, Amsterdam, 1989
2. **Structural and orientational phase transitions** (with M.I. Kaganov, L.P. Levaniuk and S. Minukov), in *Nonlinear Surface electromagnetic phenomena*, (G. Stegeman and H.E. Ponath eds), North-Holland, Amsterdam, 1991.
3. **Orientational phase transitions** (with M.I. Kaganov), in *Current Problems in Solid State Physics*, Krasnoyarsk, 1990.
4. **The superfluid transition in a polarized Fermi-gas with repulsion** (with M. Yu. Kagan), in *Proceedings of the Conference on the Theory of Physical Phenomena at High Magnetic Fields, Tallahassee, FL*, Addison-Wesley, 1991.
5. **Theory of the leading edge gap in underdoped cuprates** Int. J. Mod. Phys. B **12**, 2990 (1998).
6. **Unconventional properties of superconducting cuprates** (with D. Morr), Physica B **259-261**, 440 (1999).
7. **A relation between ARPES and neutron data in cuprates** (with A. Abanov), Physica B, **280**, 189 (2000).
8. **Fingerprints of the spin-mediated pairing in the cuprates** (with Ar. Abanov and J. Schmalian), J. Electron Spectroscopy, **117**, 129 (2001).

9. **A Spin Fluctuation Model for D-wave Superconductivity** (with D. Pines and J. Schmalian) Review Chapter in 'The Physics of Conventional and Unconventional Superconductors' edited by K.H. Bennemann and J.B. Ketterson (Springer-Verlag), 2002.

III Contributed papers at conferences (refereed), 1992-present

1. **Instability of a repulsive Fermi liquid at $T=0$** , Journal of Low Tem. Phys. **89**, 673 (1992).
2. **Order from disorder in a kagome antiferromagnet**, J. Appl. Phys. **73**, 5639 (1993).
3. **Resonant two-magnon Raman scattering in antiferromagnetic insulators**, (A.C., D. Frenkel, G. Blumberg and M. Klein) J. Phys. Chem. Solids, **56**, 1707, (1995).