

THE LIST OF PUBLICATIONS

by

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Papers in Journals

1. Ultraviolet behaviour of spontaneously broken gauge theories,
Phys.Lett. 47B (1973) 359 (with V.V.Belokurov, D.V.Shirkov, A.A.Slavnov and A.A.Vladimirov)
2. Ultraviolet asymptotics in the presence of nonabelian gauge fields,
Theor.Math.Phys. 19 (1974) 149 (with V.V.Belokurov, D.V.Shirkov, A.A.Slavnov and A.A.Vladimirov)
3. On renormalizations in nonlinear chiral field theory,
Theor.Math.Phys. 28 (1976) 46 (with V.N.Pervushin and M.K.Volkov)
4. K_{l3} decay in quantum field theory with chiral symmetry,
Phys.Lett. 64B (1976) 201 (with V.N.Pervushin and M.K.Volkov)
5. Invariant renormalization for the field theories with nonlinear symmetry,
Theor.Math.Phys. 31 (1977) 169 (with V.N.Pervushin and S.V.Pushkin)
6. Two-loop divergences of field theories with nonlinear symmetry,
Lett.Math.Phys. 21 (1978) 195 (with S.V.Pushkin)
7. An invariant renormalization method for nonlinear realizations of dynamical symmetries,
J.Phys.A:Math.Gen. 11 (1978) 2093 (with V.N.Pervushin and S.V.Pushkin)
8. Analytical continuation of perturbative results of the $g\phi^4$ model into the region $g \geq 1$,
Theor.Math.Phys. 38 (1979) 15 (with D.V.Shirkov and O.V.Tarasov)
9. On the calculation of critical exponents by the methods of quantum field theory,
JETP 77 (1979) 1035 (with A.A.Vladimirov and O.V.Tarasov)
10. Asymptotic series in quantum field theory and their summation,
Fortsch.der Phys. 28 (1980) 465 (with D.V.Shirkov)
11. On the phase transition in the Yang-Mills instanton gas,
Phys.Lett. 87B (1979) 242 (with E.-M.Ilgenfritz and M.Muller-Preussker)
12. Is there really a phase transition in Yang-Mills instanton gas?
Sov.Nucl.Phys. 31 (1980) 1107 (with E.-M.Ilgenfritz and M.Muller-Preussker)
13. A method for summing nonalternating asymptotic series,
Theor.Math.Phys. 46 (1981) 348
14. An alternative calculation of the instanton driven β -function in Yang-Mills theory,
JETP Letters 33 (1981) 350 (with E.-M.Ilgenfritz and M.Muller-Preussker)

15. Calculation of Feynman diagrams by the method of uniqueness,
Theor.Math.Phys. 58 (1984) 357
16. The method of uniqueness, a new powerful technique for multiloop calculations,
Phys.Lett. 138B (1983) 406
17. Multiloop calculations: the method of uniqueness and functional equations,
Theor.Math.Phys. 62 (1985) 127
18. The account of quark masses in scheme-invariant perturbation theory in QCD,
Sov.Nucl.Phys. 42 (1985) 768 (with D.V.Shirkov)
19. On the problem of axial anomaly in supersymmetric gauge theories,
JETP Letters 41 (1985) 272
20. Finite N=1 supersymmetric grand unified theories,
Nucl.Phys. B281 (1987) 72 (with A.V.Ermushev and O.V.Tarasov)
21. Finite SUSY field theories and dimensional regularization,
Phys.Lett. 179B (1986) 352
22. Superstrings or beyond the standard ideas,
Uspekhi Fiz.Nauk 150 (1986) 561
23. The method of uniqueness: multiloop calculations in QCD,
Theor.Math.Phys. 73 (1987) 348 (with A.V.Kotikov)
24. α_s -correction to DIS cross section ratio $R = \sigma_L/\sigma_T$ in QCD,
Sov.Nucl.Phys. 46 (1987) 1767 (with A.V.Kotikov)
25. Five-loop divergences for the N=2 supersymmetric non-linear sigma-model,
Nucl.Phys. B287 (1987) 189 (with M.T.Grisaru and D.Zanon)
26. Finite N=1 SUSY gauge field theories,
Modern Phys.Lett. A2 (1987) 663
27. A generalization of the renormalization group equations to the quantum field theories of arbitrary type,
Theor.Math.Phys. 75 (1988) 157
28. Total α_s -correction to the deep-inelastic cross-section ratio $R = \sigma_L/\sigma_T$ in QCD,
Nucl.Phys. B307 (1988) 721, B345 (1990) 299 (E) (with A.V.Kotikov)
29. Self-avoiding random walk in superspace,
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30. Complete quartic (α_s^2) correction to the deep inelastic longitudinal structure function F_L in QCD,
Phys.Rev.Lett. 65 (1990) 1535, 65 (1990) 2921 (E) (with A.V.Kotikov, G.Parente, O.A.Sampayo and J.Sanchez Guillen)
31. Renormalization group study of anyon superconductivity,
Phys.Lett. 253B (1991) 411 (with G.V. Grigoryev)
32. Renormalizations in abelian Chern-Simons field theories with matter,
Nucl.Phys. B382 (1992) 561 (with L.V.Avdeev and G.V.Grigoryev)
33. Spontaneous symmetry breaking in the relativistic model of anyon superconductivity,
Mod.Phys.Lett. A7 (1992) 13
34. Divergences in two-dimensional nonlinear sigma-models,
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35. Low-energy predictions of supersymmetric GUTs: The minimal versus the finite model,
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36. On the value of the α_s -correction to the Callan-Gross relation,
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38. RG-analysis of supersymmetric non-abelian Chern-Simons field theories with matter,
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39. Difficulties of an infrared extention of differential renormalization,
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40. On quantum deformation of the Schwarzschild solution,
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41. Relativistic Approach to Anyon Superconductivity: Phase transitions and symmetry breaking,
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42. Predictions of SUSY masses in the minimal supersymmetric Grand Unified Theories,
Z.Phys. C47 (1995) 647 (hep-ph/9405342) (with W. de Boer and R.Ehret)

43. Is the stop mass below top mass?,
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44. Renormalization group improved effective potential in the MSSM,
Mod.Phys.Lett. A10 (1995) 3129 (hep-ph/9411209) (with A.V.Gladyshev)
45. Combined fit of low energy constraints to minimal supersymmetry and discovery potential at LEP II,
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51. Finiteness of Soft Terms in Finite N=1 SUSY Gauge Theories,
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52. Higgs Limit and $b\bar{b} \rightarrow s\gamma$ Constraints in Minimal Supersymmetry,
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53. Infrared Quasi-Fixed Points and Mass Predictions in the MSSM
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54. Exploring Softly Broken SUSY Gauge Theories via Grassmannian Taylor Expansion
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71. EGRET Excess of Diffuse Galactic Gamma Rays as Tracer of Dark Matter, *Astronomy & Astrophysics*, 444 (2005) 51, (astro-ph/0508617) (with W. de Boer, C. Sander, V. Zhukov and A.V. Gladyshev).
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81. Conformal Invariance = Finiteness and Beta Deformed N=4 SYM Theory, *JHEP* 0708 (2007) 071, arXiv:0706.4245 [hep-th] (with L.V.Bork)
82. On the two-loop corrections to the pole mass of the B quark in the gaugeless limit of the MSSM, *Yad.Phys.* 70 (2007) 198 (with A.V.Bednyakov)

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108. Higgs branching ratios in constrained minimal and next-to-minimal supersym-
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