

Steven Duplij's publications 2002-2007

Books:

1. S. Duplij, W. Siegel, J. Bagger, eds, *Concise Encyclopedia of Supersymmetry and non-commutative structures in mathematics and physics*, **Kluwer Academic Publishers**, Dordrecht-Boston-London, January 2004, 561 pp. (Second printing **Springer Science**, Berlin-Heidelberg-New York-Tokyo, April 2005).

Articles:

2. S.A. Duplij, G.A. Goldin, V.M. Shtelen, Nonlinear supersymmetric classical electrodynamics, **Journal of Kharkov National University**, ser. Nuclei, Particles and Fields. - 2007. - V. **781**.- № 3(35).- P. 37–47.
3. F. Li, S. Duplij, *Weak Hopf algebras and singular solutions of quantum Yang- Baxter equation*. **Communications in Mathematical Physics** - 2002. - V. **225**. - № 1. - P. 191-217.
4. A. Borowiec, W. Dudek, S. Duplij, *Bi-element representations of ternary groups*, **Communications in Algebra** - 2005 - V. **34** (5) (2006), 1651-1670, math.GT/0306210.
5. S. Duplij, W. Marcinek, *Regular obstructed categories and topological quantum field theory*. **Journal of Mathematical Physics** - 2002. - V. **43**. - №6. - P. 3329-3341.
6. S.A. Duplij, D.V. Soroka, V.A. Soroka, *A special fermionic generalization of lineal gravity*, **J. Zhejiang Univ. Science**. - 2006. - V. **7A** (4) 629-632.
7. S. Duplij, *On supermatrix idempotent operator semigroups*. **Linear Algebra and its Applications**.- 2003.- V. **360** (C).- P. 59-81.
8. S. A. Duplij and A. T. Kotvytskiy, **Coincidence limit and generalized interaction term structure in multigravity**, *Journal of Kharkov National University, ser. Nuclei, Particles and Fields*. - 2007. - V. **784**, №4(36), p. 67–72.
9. S. Duplij, W. Marcinek, *Braid semistatistics and doubly regular R-matrix*, **Journal of Kharkov National University**, ser. “Nuclei, Particles and Fields”. - 2003. - V. 601. - N 2(22). - S. 75–80.
10. S. A. Duplij, O. I. Kotulska, and A. S. Sadovnikov, *Quantum Yang-Baxter equation and constant R-matrix over Grassmann algebra*, **J. Zhejiang Univ. Science**. - 2005. - V. **6A** (10) 1065-1079.
11. S. Duplij, O. Kotulska, *Quasideterminants, noncommutative determinants and noninvertible supermatrix structures*, **Journal of Kharkov National University**, ser. “Nuclei, particles and fields”. - 2003. - V. 585. - N 1(21). - S. 19–27.
12. S. Duplij, A. Sadovnikov, *On the structure of quantum linear semigroup*. **Journal of Kharkov National University**, ser. “Nuclei, particles and fields”. - 2003. - V. 601. - N 2(22). - S. 32–41.
13. S. A. Duplij, I. I. Shapoval, *Topological Methods In Quantum Computations*, **Journal of Kharkov National University**, ser. “Nuclei, particles and fields”. - 2007. - V. 781. - N 3(35). - S. 3–31.
14. S. Duplij, O. Kotulska, A. Sadovnikov, *Constant solutions of quantum Yang-Baxter equation over Grassmann algebra*, **Journal of Kharkov National University**, ser. Nuclei, Particles and Fields. - 2005. - V. 657. - N 1(26). - P. 23–34.

15. S. A. Duplij, I. I. Shapoval, *Topological methods in quantum computations*, **Journal of Kharkov National University**, ser. "Nuclei, particles and fields". - 2007. - V. 781. - N 3(35). - P. 3–31.
16. S. Duplij, V. Kalashnikov, E. Maslov, *Quantum information, qubits and quantum algorithms*. **Journal of Kharkov National University**, ser. Nuclei, Particles and Fields. - 2005. - V. 657. - N 1(26). - P. 103–108.
17. D. Duplij and S. Duplij, *DNA sequence representation by trianders and determinative degree of nucleotides*, **J. Zhejiang Univ. Science** **6B(8)** (2005) 743-755.
18. S. A. Duplij and A. T. Kotvytskiy, *Lagrangians in nonlinear multigravity models*, **Journal of Kharkov National University**, ser. Nuclei, Particles and Fields. - 2004. - V. **642**, 3–7.
19. S. Duplij, F. Li, *Regular R-Matrix and Weak Hopf algebras*, In: "**Karazin Natural Science Studios**", KNU, Kharkov, 2004, p. 177-181.
20. S. A. Duplij, I. I. Shapoval, *Decays of B meson, supersymmetry and polarization*, **Journal of Kharkov National University**, ser. "Nuclei, particles and fields". - 2004. - V. 642. - N 3(25). - S. 16–21.
21. D. Duplij, S. Duplij, *DNA walks, trianders and determinative degree*, In: "**Karazin Natural Science Studios**", KNU, Kharkov, 2004, p. 250-254.
22. S. A. Duplij, A. T. Kotvytskiy, *Lagrangians in nonlinear multigravity models*, In: "**Journal of Kharkov National University**", ser. "Nuclei, particles and fields". - 2004. - V. 642. - № 3(25). - C. 3–7.
23. S. Duplij, V. Kalashnikov, *Quantum information and qubits*, In: "**Karazin Natural Science Studios**", KNU, Kharkov, 2004, p. 169-171.
24. S. Duplij, W. Marcinek, *Toposes and categories in quantum theory and gravity*, **Journal of Kharkov National University**, ser. Nuclei, Particles and Fields. - 2002. - V. 579. - N 4(20). - P. 17–31.
25. S. Duplij, A. Sadovnikov, *Regular supermatrix solutions of quantum Yang-Baxter equation*, **Journal of Kharkov National University**, ser. Nuclei, Particles and Fields. - 2002. - V. 569. - N 3(19). - P. 15–22.
26. S. Duplij, *Coderivations, covariant comodule maps and noncommutative geometry*, In: "**Karazin Natural Science Studios**", KNU, Kharkov, 2004, p. 173-177.

In books and conference proceedings:

27. S. Duplij, G. A. Goldind, V. Shtelen, *Lagrangian and non-Lagrangian approaches to electrodynamics including supersymmetry*, in "XXVI Workshop on the **Geometrical Methods in Physics**, Bialystok", 2007, pp.23-31.
28. S. A. Duplij, I. I. Shapoval, **Quantum computations: fundamentals and algorithms**, Problems Of Atomic Science And Technology (PAST).-2007.-No.3(1).-p.230-235.
29. S. Duplij, G. A. Goldind, V. Shtelen, **Generalizations of Nonlinear and Supersymmetric Classical Electrodynamics**, Los Alamos preprint, 2007, №0711.0404, 14 pp. (submitted to Journal of Physics A: Math. & Gen.).
30. S. Duplij, 130 articles in **Concise Encyclopedia of Supersymmetry and noncommutative structures in mathematics and physics**, S. Duplij, W. Siegel, J. Bagger, eds, Kluwer Academic Publishers, Dordrecht-Boston-London, January 2004, 561 pp. (Second printing Springer Science, Berlin-Heidelberg-New York-Tokyo, April 2005).