

List of Steven Duplij's publications 1996–2001

- [1] **Duplij, S.**, 1996. Ideal structure of superconformal semigroups. *Theor. Math. Phys.* **106** , 355–374.
- [2] **Duplij, S.**, 1997. Some abstract properties of semigroups appearing in superconformal theories. *Semigroup Forum* **54** , 253–260.
- [3] **Duplij, S.**, 1996. On an alternative supermatrix reduction. *Lett. Math. Phys.* **37** , 385–396.
- [4] **Duplij, S.**, 1997. Noninvertible $N=1$ superanalog of complex structure. *J. Math. Phys.* **38** , 1035–1040.
- [5] **Duplij, S.**, 1996. Noninvertibility and "semi—" analogs of (super) manifolds, fiber bundles and homotopies, Kaiserslautern, 30 p., *preprint*, Univ. Kaiserslautern; KL-TH-96/10, q-alg/9609022.
- [6] **Duplij, S.**, 1996. Supermatrix representations of semigroup bands. *Pure Math. Appl.* **7** , 235–261.
- [7] **Akulov, V. P., Chitov, V. V., and Duplij, S.**, 1997. Differential calculus on q -deformed light-cone, Kaiserslautern, 8 p., *preprint*, Univ. Kaiserslautern; KL-TH-97/1, q-alg/9701026.
- [8] **Duplij, S.**, 1998. Nonlinear realization of $N = 1$ superconformal-like transformations, Kaiserslautern, 15 p., *preprint*, Univ. Kaiserslautern; KL-TH 98/02.
- [9] **Akulov, V. P. and Duplij, S.**, 1998. Nilpotent marsh and SUSY QM. In *Supersymmetries and Quantum Symmetries*. Eds. **Wess, J. and Ivanov, E. A.**.. Springer-Verlag, Heidelberg, pp. 235–242.
- [10] **Akulov, V. P., Chitov, V. V., and Duplij, S.**, 1998. q -Differential calculus and deformed light-cone. In *Supersymmetry and Quantum Field Theory*. Eds. **Wess, J. and Akulov, V. P.**.. Springer-Verlag, Heidelberg, pp. 317–320.
- [11] **Akulov, V. P. and Duplij, S.**, 1998. Nilpotent marsh and SUSY QM, New York, 8 p., *preprint*, City Coll. of City Univ., hep-th/9809089.
- [12] **Duplij, S.**, 1998. On superconformal-like transformations and their nonlinear realization. In *Supersymmetries and Quantum Symmetries*. Eds. **Wess, J. and Ivanov, E. A.**.. Springer-Verlag, Heidelberg, pp. 243–251.
- [13] **Duplij, S.**, 1998. On semi-supermanifolds. *Pure Math. Appl.* **9** , 283–310.
- [14] **Duplij, S.**, 1998. Superconformal-like transformations and nonlinear realizations. *Southwest J. Pure and Appl. Math.* **2** , 85–112.

- [15] **Akulov, V. P., Duplij, S., and Chitov, V. V.**, 1998. Differential calculus for q-deformed twistors. *Theor. Math. Phys.* **115**, 177–184.
- [16] **Duplij, S.** 1999. *Semigroup methods in supersymmetric theories of elementary particles*. Habilitation Thesis, Kharkov State University, math-ph/9910045. Kharkov.
- [17] **Duplij, S.**, 1999. Superconformal-like twisting parity morphisms, deformations and odd cocycles. *Kharkov State University Journal (Vestnik KSU)*, ser. *Nuclei, Particles and Fields* **453**, 3–8.
- [18] **Duplij, S.**, 1999. Noninvertibility and additional symmetries on hyperbolic superplane. *Kharkov State University Journal (Vestnik KSU)*, ser. *Nuclei, Particles and Fields* **463**, 3–6.
- [19] **Duplij, S. and Marcinek, W.**, 2000. On higher regularity and monoidal categories. *Kharkov State University Journal (Vestnik KSU)*, ser. *Nuclei, Particles and Fields* **481**, 27–30.
- [20] **Duplij, S. and Chursin, M.**, 2000. On structure of smooth semisupermanifolds. *Kharkov State University Journal (Vestnik KSU)*, ser. *Nuclei, Particles and Fields* **481**, 22–26.
- [21] **Duplij, S. and Marcinek, W.**, 2000. Higher regularity properties of mappings and morphisms, Wrocław, 12 p., *preprint*, Univ. Wrocław; IFT UWr 931/00, math-ph/0005033.
- [22] **Duplij, D. and Duplij, S.**, 2000. Symmetry analysis of genetic code and determinative degree. *Biophysical Bull. Kharkov Univ.* **488**, 60–70.
- [23] **Duplij, D. and Duplij, S.**, 2000. Determinative degree and nucleotide content of DNA strands. *Biophysical Bull. Kharkov Univ.* **497**, 57–64.
- [24] **Duplij, D. and Duplij, S.**, 2001. Symmetric properties of genetic code. *Biopolymers and Cell* **21**, 10–17.
- [25] **Duplij, S.**, 2000. On supermatrix idempotent operator semigroups, Kharkov, 11 p., *preprint*, Kharkov National Univ., math.FA/0006001.
- [26] **Duplij, D. and Duplij, S.**, 2000. Symmetry analysis of genetic code and determinative degree, Kharkov, 11 p., *preprint*, Kharkov National Univ., physics/0006062.
- [27] **Duplij, D. and Duplij, S.**, 2000. Purine-pyrimidine symmetry, determinative degree and DNA, Kharkov, 8 p., *preprint*, Kharkov National Univ., physics/0008231.
- [28] **Duplij, S. and Marcinek, W.**, 2000. Semisupermanifolds and regularization of categories. In *Supersymmetric Structures in Mathematics and Physics*. Eds. **Duplij, S. and Zima, V. G.**. UkrINTI, Kiev, pp. 102–115.

- [29] *Supersymmetric Structures in Mathematics and Physics*. 2000.
Eds. **Duplij, S.** and **Zima, V. G.**. UkrINTI, Kiev.
- [30] **Duplij, S.**, 2000. On TPT analogs of cocycles and deformations. In *Supersymmetries and Quantum Symmetries*. Eds. **Ivanov, E.**, **Krivonos, S.**, and **Pashnev, A.**. JINR, Dubna, pp. 358–363.
- [31] **Duplij, S.** 2000. *Semisupermanifolds and semigroups*. Krok. Kharkov.
- [32] *Noncommutative Structures in Mathematics and Physics*. 2001.
Eds. **Duplij, S.** and **Wess, J.**. Kluwer, Dordrecht.
- [33] **Duplij, S.** and **Marcinek, W.**, 2001. Noninvertibility, semisupermanifolds and categories regularization. In *Noncommutative Structures in Mathematics and Physics*. Eds. **Duplij, S.** and **Wess, J.**. Kluwer, Dordrecht, pp. 125–140.
- [34] **Duplij, S.**, 2001. Semigroups of supermatrices and one-parameter idempotent superoperators. *Journal of Kharkov National University, ser. Nuclei, Particles and Fields* **510**, 11–23.
- [35] **Duplij, S.** and **Frydryszak, A.**, 2001. Supersymmetry, nontrivial fermionic shell and nilpotent mechanics. *Journal of Kharkov National University, ser. Nuclei, Particles and Fields* **510**, 24–30.
- [36] **Duplij, S.** and **Li, F.**, 2001. On regular solutions of quantum Yang-Baxter equation and weak Hopf algebras. *Journal of Kharkov National University, ser. Nuclei, Particles and Fields* **521**, 15–30.
- [37] **Duplij, S.**, 2001. On regular superalgebras and obstructed categories. *Journal of Kharkov National University, ser. Nuclei, Particles and Fields* **521**, 7–12.
- [38] **Duplij, S.**, 2000. On supermatrix operator semigroups. *Quasigroups and Related Systems* **7**, 71–98.
- [39] **Duplij, S.** and **Marcinek, W.**, 2001. Semisupermanifolds and regularization of categories, modules, algebras and Yang-Baxter equation. In *Supersymmetry and Quantum Field Theory*. Elsevier Science Publishers, Amsterdam, pp. 110–115.
- [40] **Li, F.** and **Duplij, S.**, 2001. Weak Hopf algebras and singular solutions of quantum Yang-Baxter equation, Hangzhou, 24 p., *preprint*, Zhejiang Univ., math.QA/0105064.
- [41] **Borowiec, A.**, **Dudek, W.**, and **Duplij, S.**, 2001. Basic concepts of ternary Hopf algebras. *Journal of Kharkov National University, ser. Nuclei, Particles and Fields* **529**, 21–29.