

List of publications

Anton Khoroshkin

Submitted:

1. “Lie algebra cohomology representing characteristic classes of flags of foliations”
Preprint available at [math.arxiv.org:1303.1889](https://arxiv.org/abs/math/1303.1889), 30pp.
2. “On generating series of finitely presented operads” (with D. Piontkovski),
Preprint available at [math.arxiv.org:1202.5170](https://arxiv.org/abs/math/1202.5170), 32pp. *Submitted to* Journal of Algebra.

Accepted or Published:

3. “Macdonald Polynomials and BGG reciprocity for current algebras”
(with A. Berenstein, M. Bennet, V. Chari, S. Loktev)
Selecta Mathematica. (to appear) // *Preprint available at* [math.arxiv.org:1207.2446](https://arxiv.org/abs/math/1207.2446),
19pp.
4. “Quillen Homology for operads via Gröbner bases” (with V. Dotsenko),
Documenta Mathematica. 18 (2013) pp. 707–747
5. “Hypercommutative operad as a homotopy quotient of BV.” (with N. Markarian and
S. Shadrin)
Comm. Math. Phys., *to appear.* // *Preprint available at* [math.arxiv:1206.3749](https://arxiv.org/abs/math/1206.3749).
6. “Shuffle Algebras, Homology and Consecutive Pattern Avoidance” (with V. Dotsenko),
Algebra & number theory, *to appear.* // *Preprint available at* [math.arXiv:1109.2690](https://arxiv.org/abs/math/1109.2690), 24
pp.
7. “Using homological duality in consecutive pattern avoidance” (with B. Shapiro)
Electronic J. of Combinatorics, vol.18(2), 2011, 17 pp.
8. “Gröbner bases for operads” (with V. Dotsenko)
Duke Math. J. 153 (2010), no. 2, 363–396.
9. “On syzygies of highest weight orbits.” (with A. L. Gorodentsev and A. N. Rudakov)
Moscow Seminar on Mathematical Physics. II, 79120, Amer. Math. Soc. Transl. Ser. 2,
221, Amer. Math. Soc., Providence, RI, 2007
10. “Quadratic algebras related to the bihamiltonian operad” (with M. Bershtein and V. Dotsenko)
IMRN 2007, no. 24, Art. ID rnm122, 30 pp.
11. “Character formulas for the operad of two compatible brackets and for the bi-Hamiltonian
operad” (with V. Dotsenko)
Funct. Anal. Appl. 41 (2007), no. 1, 1–17
12. “Syzygies of some quadratic varieties and their connection with the cohomology of Lie
algebras”
Russian Math. Surveys 61 (2006), no. 5, 990–992
13. “Lie algebra of formal vector fields extended by formal \mathfrak{g} -valued functions”
Zap. Nauchn. Sem. S.-Peterburg. Otdel. Mat. Inst. Steklov. (POMI) 335 (2006),
205–230; translation in J. Math. Sci. (N. Y.) 143 (2007), no. 1, 2816–2830,

Preprints:

14. “Anick-type resolutions and consecutive pattern avoidance” (with V. Dotsenko)
Preprint available at [math.arXiv:1002.2761](https://arxiv.org/abs/math/1002.2761), 16 pp.
15. “Free resolutions via Gröbner bases” (with V. Dotsenko)
Preprint available at [math.arxiv:0912.4895](https://arxiv.org/abs/math/0912.4895), 24 pp.
16. “Lie algebra of formal vector fields that preserve the foliation structure”
preprint in russian ITEP-TH-09/07, available as VINITI RAS, N1376-B2006, – 2006, – 38pp.
17. “Koszul operads and distributive lattices”
Preprint ITEP-TH available at http://elib.itep.ru/Mathphys/psfiles/05_95.ps

Articles in preparation:

18. “Highest weight categories and Macdonald polynomials”
19. “On formality theorems for framed little discs operad” (with N. Markarian),
20. “Gröbner bases for dioperads” (with V. Dotsenko),
21. “On Hilbert series of wheeled operads”