

# Alexandr Polyanskii

## List of publications

### RESEARCH PAPERS [\[arXiv\]](#)

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14. Z. Jiang, [A. Polyanskii](#), “Proof of László Fejes Tóth’s zone conjecture”, [arXiv:1703.10550](#).
13. [A. Polyanskii](#), “Helly-type theorem for eigenvectors”, [arXiv:1611.03251](#).
12. [A. Polyanskii](#), “Pairwise intersecting homothets of a convex body”, *Discrete Mathematics* **340(8)** (2017), 1950–1956, [arXiv.1610.04400](#).
11. M. Naszodi, [A. Polyanskii](#), “Multiple Transversals Greedily”, [arXiv:1608.01292](#), submitted to *European Journal of Combinatorics*.
10. B.G. Merino, T. Jahn, [A. Polyanskii](#), G. Wachsmuth, “Hunting for reduced polytopes”, [arXiv:1701.08629](#), submitted to *Discrete and Computational Geometry*.
9. A. Kupavskii, [A. Polyanskii](#), “On simplices in diameter graphs in  $\mathbb{R}^4$ ”, *Mathematical Notes* **101(2)** (2017), 265–276.
8. A. Kupavskii, [A. Polyanskii](#), “Proof of Schur’s conjecture in  $\mathbb{R}^D$ ”, *Combinatorica* (2016), [arXiv.1402.3694](#).
7. V.V. Bulankina, A.B. Kupavskii, [A.A. Polyanskii](#), “On Schur’s conjecture in  $\mathbb{R}^4$ ”, *Mathematical Notes* **97(1)** (2015), 21–29.
6. [A. Polyanskii](#), “On a question of Makai and Martini on bodies of constant width”, *Contributions to Algebra and Geometry* **55(2)** (2014), 635–636.
5. V.V. Bulankina, A.B. Kupavskii, [A.A. Polyanskii](#), “Note on Schur’s conjecture in  $\mathbb{R}^4$ ”, *Doklady Mathematics* **89(1)** (2014), 88–91.
4. [A. Polyanskii](#), “On the irrationality measure of certain numbers-II”, submitted to *Mathematical Notes*.
3. [A. Polyanskii](#), “Quadratic irrationality exponents of certain numbers”, *Moscow University Mathematics Bulletin* **68(4)** (2013), 25–29.
2. [A. Polyanskii](#), “Square exponent of irrationality of  $\ln 2$ ”, *Moscow University Mathematics Bulletin* **67(1)** (2012), 25–30.
1. [A. Polyanskii](#), “On the irrationality measure of certain numbers”, *Moscow Journal of Combinatorics and Number Theory* **1(4)** (2011), 80–90, [arXiv.1501.06752](#).

### EXPOSITORY PAPERS

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6. [A. Polyanskii](#), P. Tarasov, “Selected examination problems in discrete analysis”, *Matematicheskoe Prosvetshenie* **1** (2017), 205–209 (in Russian).
5. F. Nilov, [A. Polyanskii](#), N. Polyanskii, “Szemerédi—Trotter theorem”, *Matematicheskoe Prosvetshenie* **1** (2017), 186–196 (in Russian).

4. F. Nilov, A. Polyanskii, N. Polyanskii, “[Point-Line Incidences](#)”, *Research project for Summer conference of [Tournament of Towns](#) in Kalinigrad* (2014) (bilingual).
3. A. Polyanskii, “[Solving problems without using Pick’s formula](#)”, *Kvant* **2** (2013), 40–42 (in Russian).
2. A. Zaslavskiy, F. Nilov, A. Polyanskii, M. Skopenkov, “[Webs from lines and circles](#)”, *Research project for Summer conference of [Tournament of Towns](#) in Teberda* (2012) (bilingual).
1. A. Polyanskii, “[To shoot a cannon with sparrows](#)”, *Kvant* **2** (2012), 49–50, 60–61 (in Russian).

## IN PREPARATION

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3. F. Nilov, A. Polyanskii, “On Sylvester-Gallai theorem for vectors”
2. A. Polyanskii, “On almost-equidistant sets”
1. N. Chernega, A. Polyanskii, R. Sadykov, “Geometric graphs with no  $k$  edges disjoint from an edge”