List of publications

on the dissertation "Extremal problems in Euclidean combinatorial geometry"

by Danila Cherkashin

The thesis is based on the following papers and preprints:

1. "On the horseshoe conjecture for maximal distance minimizers", D. Cherkashin, Y. Teplitskaya, ESAIM: Control, Optimisation and Calculus of Variations 24 (3), 1015–1041, 2018 (IF2018 1.295, Q2)

2. "A self-similar infinite binary tree is a solution to the Steiner problem", D. Cherkashin, Y. Teplitskaya, Fractal and Fractional 7 (5), 414, 2023 (IF2022 5.4, Q1)

3. "Independence numbers of Johnson-type graphs", D. Cherkashin, S. Kiselev, Bulletin of the Brazilian Mathematical Society, New Series 54 (3), 30, 2023 (IF2022 0.7, Q3)

4. "On the chromatic number of 2-dimensional spheres", D. Cherkashin, V. Voronov, Discrete & Computational Geometry, 71, 467–479, 2024 (IF2022 0.8, Q3)

5. "On the chromatic numbers of 3-dimensional slices", V.A. Voronov, A.Y. Kanel-Belov, G.A. Strukov, D.D. Cherkashin, Zapiski Nauchnykh Seminarov POMI 518, 94–113, 2022 (in Russian, English translation to appear in Journal of Mathematical Sciences, SJR2022 0.314, Q3)

6. "On the chromatic numbers of Johnson-type graphs", D.D. Cherkashin, Zapiski Nauchnykh Seminarov POMI 518, 192–200, 2022 (in Russian, English translation to appear in Journal of Mathematical Sciences, SJR2022 0.314, Q3)

7. "On uniqueness in Steiner problem", M. Basok, D. Cherkashin, N. Rastegaev, Y. Teplitskaya, preprint arXiv:1809.01463, to appear in IMRN, 2024 (IF2022 1.0, Q2)

8. "On minimizers of the maximal distance functional for a planar convex closed smooth curve" D.D. Cherkashin, A.S. Gordeev, G.A. Strukov, Y.I. Teplitskaya, preprint arXiv:2011.10463, submitted to St. Petersburg Mathematical Journal

9. "Branching points in the planar Gilbert–Steiner problem have degree 3", D. Cherkashin, F. Petrov, preprint arXiv:2309.04202, to appear in Pure and Applied Functional Analysis, the volume is dedicated to the memory of Anatoly Moiseevich Vershik

10. "An overview of maximal distance minimizers problem", D. Cherkashin, Y. Teplitskaya, preprint arXiv:2212.05607, submitted to Serdica Mathematical Journal