

ALEXEY GORDEEV

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EDUCATION

- Ph.D.:* St.Petersburg Department of V.A. Steklov Institute (PDMI RAS) 2017 – 2022
Mathematics Thesis title: Applications of polynomial method in combinatorics
- Specialist degree (equiv. B.Sc.+M.Sc.):* Saint Petersburg State University 2012 – 2017
Fundamental Mathematics and Mechanics Thesis title: Applications of polynomial method to Dyson-type identity

RESEARCH POSITIONS

- HUN-REN Alfréd Rényi Institute of Mathematics** 2026 – 2028
Momentum MSCA Postdoctoral Researcher Budapest, Hungary
- Umeå University, Department of Mathematics and Mathematical Statistics** 2023 – 2025
Postdoctoral Researcher Umeå, Sweden
- The Euler International Mathematical Institute** 2019 – 2022
Junior Researcher Saint Petersburg, Russia

RESEARCH VISITS

- EPFL, Bernoulli Center for Fundamental Studies** August 19 – September 13, 2024
Long-term research stay Lausanne, Switzerland
- Bulgarian Academy of Sciences, Institute of Mathematics and Informatics** June 2023
Visiting Researcher Sofia, Bulgaria

GRANTS

- Momentum Marie Skłodowska-Curie Actions Postdoctoral Fellowship** 2025

PUBLICATIONS

- A. Gordeev**, K. Markström, L.D. Öhman, *Near triple arrays*. J. Combin. Theory Ser. A 219, 106121, 2026.
- A.S. Árnadóttir, **A. Gordeev**, S. Lato, T. Randrianarisoa, J. Vermant, *Cayley incidence graphs*, Ars Math. Contemp. 2025. In press, <https://doi.org/10.26493/1855-3974.3510.a82>.
- A. Gordeev**, Y. Teplitskaya, *On regularity of maximal distance minimizers in \mathbb{R}^n* . Ann. Sc. Norm. Super. Pisa Cl. Sci. 26(3), 1639–1663, 2025.
- A. Gordeev**, *Combinatorial Nullstellensatz and Turán numbers of complete r -partite r -uniform hypergraphs*. Discrete Math. 347(7), 114037, 2024.
- D. Cherkashin, **A. Gordeev**, G. Strukov, *Erdős–Hajnal problem for H -free hypergraphs*. Graphs Combin. 40(1), 1–15, 2024.
- A. Gordeev**, Z. Li, F. Petrov, Z. Shao, *The Alon–Tarsi number of a toroidal grid*. European J. Combin. 111, 103697, 2023.
- D. Cherkashin, **A. Gordeev**, *On list chromatic numbers of 2-colorable hypergraphs*. Proc. MIPT 14(1), 49–57, 2022.
- A. Gordeev**, F. Petrov, *Alon–Tarsi numbers of direct products*. Mosc. J. Comb. Number Theory 10(4), 271–279, 2021.
- A. Gordeev**, *Constant terms of near-Dyson polynomials*. Electron. J. Combin. 25(4), 2018.

PREPRINTS

- A. Gordeev**, *Bollobás–Meir TSP conjecture holds asymptotically*. <https://arxiv.org/abs/2603.22010>, 2026.
- A. Gordeev**, L.D. Öhman, *Resolvable triple arrays*. <https://arxiv.org/abs/2512.08681>, 2025.
- D. Cherkashin, **A. Gordeev**, G. Strukov, Y. Teplitskaya, *Maximal distance minimizers for a rectangle*. <https://arxiv.org/abs/2106.00809>, 2021.
- D. Cherkashin, **A. Gordeev**, G. Strukov, Y. Teplitskaya, *On minimizers of the maximal distance functional for a planar convex closed smooth curve*. <https://arxiv.org/abs/2011.10463>, 2020.

SELECTED TALKS

- “Bollobás–Meir conjecture for the TSP in the unit cube holds asymptotically”**
PGMO Days 2025, Paris, France November 18, 2025
- “A Christofides-based approach to the travelling salesman problem in the unit cube”**
Eurocomb’25, Budapest, Hungary August 28, 2025
- “Near triple arrays”**
Eurocomb’25, Budapest, Hungary August 25, 2025
- “Combinatorial Nullstellensatz and the Erdős box problem”**
Synergies of combinatorics and theoretical computer science, Lausanne, Switzerland August 19, 2024
- “New non-extremal triple arrays”**
30th British Combinatorial Conference, London, UK July 3, 2024
- “Planar bubble cluster. Connectivity and other problems”**
Conference of Small Research Groups, Saint Petersburg, Russia December 1, 2021
- “On list chromatic numbers of 2-colorable hypergraphs”**
Groups and Graphs, Semigroups and Synchronization, Sochi, Russia, online talk August 13, 2021
- “Constant terms of near-Dyson polynomials”**
The Second Alan Turing Contest, Saint Petersburg, Russia June 29, 2017

WORKSHOPS

- Synergies of Combinatorics and Theoretical Computer Science** August 19 – August 23, 2024
Lausanne, Switzerland
- Discrete math and Geometry Research Symposium (DiGResS)** May 27 – May 29, 2024
Umeå, Sweden
- Workshop on Open Problems in Combinatorics and Geometry** October 13 – 19, 2019
Adygea, Russia
- 3rd Hungarian-Russian Combinatorics workshop** May 20 – 25, 2019
Moscow and Petrozavodsk, Russia

TEACHING

- Lecturer (*Algorithms and Data Structures*)** *Saint Petersburg State University*
- Algorithms and Data Structures I Fall 2019, Spring 2021
- Algorithms and Data Structures II Spring 2019, Spring 2020, Fall 2021
- Algorithms and Data Structures III Fall 2019, Fall 2020
- Teacher (*Algorithms and Data Structures*)** *Summer Informatics Camp, Perm, Russia*
- 3 week course with lectures and practice sessions August 2013 – 2019, September 2021

ACADEMIC AND COMMUNITY SERVICE

- Reviewed for *SIAM Journal on Discrete Mathematics*, *Combinatorica*, *Discrete Mathematics*, *Journal of Combinatorial Designs*, *Discussiones Mathematicae Graph Theory*, etc.
- Gave a lecture and held a training contest for the Bulgarian IOI team July 2023
- Supervised “Steiner trees” track at the Research School in Mathematics and Computer Science for high school students in Sirius, Russia January 2022
- Took part in organizing Summer Informatics Camp in Perm, Russia 2013–19, 2021

OTHER EMPLOYMENT

- WorldQuant Research (Eurasia), Saint Petersburg Research Office** 2017 – 2019
Quantitative Researcher

ACHIEVEMENTS IN COMPETITIONS

World Champion , ACM ICPC World Finals	2016
Gold Medal , International Olympiad in Informatics	2012
Winner's Diploma , Russian National Olympiad in Informatics	2011, 2012
Winner's Diploma , Russian National Olympiad in Mathematics	2010

PROGRAMMING SKILLS

C++, **Python**, **SageMath**