# Dmitrii Pavlov

#### **Education**

- 2022 **PhD Student in Mathematics**, Max Planck Institute for Mathematics in the Sciences, Advisor: Bernd Sturmfels.
- 2016–2022 **Specialist (equivalent to Masters) in Mathematics**, Moscow State University, Advisors: Yu.P. Razmyslov, G.A. Pogudin. GPA: 5.0/5.0

# Employment

- 2021–2022 Huawei Russian Research Institute, Moscow Optic Algorithm Laboratory, *Junior research engineer*.
  - Research in digital signal processing, discrete optimization and numerical methods for solving Nonlinear Schrödinger equation.
- 2019–2021 **Moscow Center for Continuous Mathematical Education**, *Editor of interactive courses and textbooks in mathematics*.
- 2019–2020 **Yandex.Math**, Consultant of interactive courses in mathematics.
- 2018–2019 Mathematical Circle of MSU Faculty of Mechanics and Mathematics, Tutor.

### Scholarships

2021 Kolmogorov Scholarship for Academic Excellence, Moscow State University

#### Publications

**Gibbs Manifolds** D. Pavlov, B. Sturmfels and S. Telen, http://arxiv.org/abs/2211.15490, 2022.

On realizing differential-algebraic equations by rational dynamical systems D. Pavlov and G. Pogudin, ACM International Symposium on Symbolic and Algebraic Computation (ISSAC), doi:10.1145/3476446.3535492, 2022.

From algebra to analysis: new proofs of theorems by Ritt and Seidenberg D. Pavlov, G. Pogudin and Yu. Razmyslov, Proceedings of American Mathematical Society, https://doi.org/10.1090/proc/16065, 2022.

#### Presentations

12 Apr 2022 Realizability of algebraic differential equations by rational dynamical systems, Algebra and Model Theory Seminar, Moscow State University.

- 8 Dec 2020 Analytic spectrum of differential C-algebra with several commuting derivations, Algebra and Model Theory Seminar, Moscow State University.
- 28 Mar 2020 **Differentials of morphisms of algebraic groups**, Algebraic Transformation Groups Seminar, Moscow State University.
- 8 May 2019 **Differentially flat systems**, Algebra and Model Theory Seminar, Moscow State University.
- 6 Oct 2018 **Structure theory of Lie algebras**, Algebraic Transformation Groups Seminar, Moscow State University.

# Computer skills

Languages: Python, Sage, SQL, C/C++

Software: LaTex, GitLab, Linux

# Language proficiency

Russian (native), English (fluent), French (upper-intermediate)

## Awards on math olympiads

- 2016 MSU Olympiad in mathematics, First Prize.
- 2016 ITMO University Olympiad in mathematics and informatics, Second Prize.
- 2014, 2016 Regional stage of Russian National Olympiad in mathematics, Second Prize.
- 2015, 2016 HSE Olympiad in mathematics, Second Prize.
  - 2016 MIPT Olympiad in mathematics, Second Prize.