Sergey Yurkevich

Curriculum Vitae

Oskar-Morgenstern-Platz 1 1090 Vienna, Austria ⊠ sergey.yurkevich@univie.ac.at '• homepage.univie.ac.at/sergey.yurkevich/



Personal Information

Date of Birth July 10, 1996

Place of Birth Moscow, Russian Federation

Nationality Austrian

Education

2020-present **PhD** in Mathematics,

Advisors: Alin Bostan and Herwig Hauser.

University of Vienna, Faculty of Mathematics, Austria

UNIVERSITÉ PARIS-SACLAY, Inria Saclay, France

2018–2020 Master of Science in Quantitative Finance,

Advisor: Kurt Hornik.

VIENNA UNIVERSITY OF ECONOMICS AND BUSINESS (WU VIENNA),

Faculty of Quantitative Finance, Austria

2017–2020 Master of Science in Mathematics,

Advisor: Herwig Hauser.

University of Vienna, Faculty of Mathematics, Austria

2015–2018 Bachelor of Science in Business Administration.

VIENNA UNIVERSITY OF ECONOMICS AND BUSINESS (WU VIENNA),

Faculty of Economics and Social Sciences, Austria

2014–2017 Bachelor of Science in Mathematics.

University of Vienna, Faculty of Mathematics, Austria

2006–2014 **High School**.

Bundesrealgymnasium GRG3 Radetzkystraße, Vienna, Austria

2006–2014 High School.

Russian Embassy School, Vienna, Austria

Scholarships

2021–2023 ÖAW DOC Fellowship, Austrian Academy of Sciences, Austria

2018–2020 Research Scholarship for Master Students, University of Vienna, FWF Project

31338, Austria.

- 2018–2020 Scholarship for young talented researchers, Pro Scientia, Austria.
- 2014–2020 Scholarship of excellence (Leistungsstipendium), University of Vienna, Austria.
- 2016–2020 Scholarship of excellence (Leistungsstipendium), Vienna University of Economics and Business, Austria.

Competitions and Honors

- MEMO Middle European Mathematical Olympiad.
 - "Honourable Mention" Hungary, 2013.
 - IMO International Mathematical Olympiad.
 - "Third Prize" South Africa, 2014.
- VJIMC Vojtěch Jarník International Mathematical Competition.
 - "Honourable Mention" Czech Republic, 2015, 2016 & 2019,
 - "Third Prize" Czech Republic, 2017 & 2018.
 - IMC International Mathematical Competition.
 - "Honourable Mention" Bulgaria, 2017,
 - "Third Prize" Bulgaria, 2015, 2016 & 2018.
- NCUMC North Countries Universities Mathematical Competition.
 - "First Prize" St. Petersburg, 2018

Research experience

- 2021—present Employment in the research project *Algebraic Solutions of Fuchsian Differential Equations*, University of Vienna, FWF Project 31338, Austria
 - 2018–2021 Employment in the research project *Artin Approximation, Arc Spaces and Resolution of Singularities*, University of Vienna, FWF Project 31338, Austria

Publications

Accepted articles

- August 2021 "A hypergeometric proof that Iso is bijective", with A. Bostan, 6 pages to appear in *Proceedings of the American Mathematical Society*
- December 2020 "Fast Computation of the N-th Term of a q-Holonomic Sequence and Applications", with A. Bostan, 33 pages to appear in J. of Symbolic Computation
- September 2020 "On a Class of Hypergeometric Diagonals", with A. Bostan, 17 pages to appear in *Proceedings of the American Mathematical Society*
 - Mai 2020 "Diagonal Representation of Algebraic Power Series: A Glimpse Behind the Scenes". In: Transcendence in Algebra, Combinatorics, Geometry and Number Theory (TRANS 2019). Springer Proceedings in Mathematics and Statistics, vol 373, pp. 309–339. doi.org/10.1007/978-3-030-84304-5_13

Submitted articles

- December 2021 "An algorithmic approach to Rupert's problem", with J. Steininger 26 pages
- November 2021 "The art of algorithmic guessing in gfun" 25 pages
- September 2021 "On the q-analogue of Pólya's Theorem", with A. Bostan 8 pages

Scientific Activities

- December 2021 Participant and speaker at CAP21, Bures-sur-Yvette, France.
- November 2021 Participant and speaker at Maple Conference, Virtual, Online.
 - August 2021 Participant and speaker at SIAM AG21, Virtual, Online.
 - July 2021 Participant and speaker at ACA 2021, Virtual, Online.
 - July 2021 Participant at ISSAC 2021, Saint Petersburg, Russia.
 - June 2021 Participant at Lattice Paths, Combinatorics and Interactions, Marseille, France.
 - June 2021 Participant at EJCIM 2021, Virtual, Online.
 - March 2021 Participant at the Journées ALEA, Marseille, France.
 - March 2021 Participant and speaker at the JNCF, Marseille, France.
- September 2020 Speaker at the seminar Transcendance et combinatoire.
 - July 2020 Participant at the ISSAC 2020, Kalamata, Greece.
 - March 2020 Participant and speaker in the VSM Retreat, Yspertal, Austria.
 - February 2020 Participant and speaker in the *Workshop on "The Arithmetic of Differential Equations"*, Lisbon, Portugal.
 - January 2020 Participant and speaker at the *Workshop "Algebraic Geometry in Austria"*, Seewalchen am Attersee, Austria.
- September 2019 Participant at the "Pro Scientia Sommerakademie", Bozen, Italy.
 - July 2019 Participant at the "Lüsens Workshop", Lüsens, Austria.
 - May 2019 Participant at the *conference "Transient Transcendence in Transylvania"*, Brasov, Romania.
 - February 2019 Participant and speaker at the *Workshop on "Algebraic Marvels in Differential Equations"*, Lisbon, Portugal.
 - January 2019 Participant and speaker at the "Wesenufer Workshop", Wesenufer, Austria.
- September 2018 Participant in the VDS Summer School, Techendorf am Weißensee, Austria.
- September 2018 Participant at the *conference "Data Science in Finance with R (DSF-R)"*, Vienna. Austria.
- September 2018 Participant at the "Pro Scientia Sommerakademie", Bad Aussee, Austria.

Peer Review Activities

- 2021 Referee for The American Mathematical Monthly
- 2021 Referee for Experimental Mathematics
- 2021 Referee for European Journal of Combinatorics
- 2021 Referee for ISSAC 2021

Languages

Russian (native), German (native), English (fluent), French (elementary)