

# NATALIIA KUSHNERCHUK

Espoo, Finland

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## EDUCATION

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### Aalto University

Espoo, Finland

*School of Science, Department of Mathematics and System Analysis, Doctoral degree*

*since 2023*

### Aalto University

Espoo, Finland

*School of Science, Mathematics and Operations Research, Master's degree (pass with honours)*

*2021 – 2023*

### Saint Petersburg State University

Saint Petersburg, Russia

*Department of Mathematics and Computer Science, Mathematics, Bachelor's degree*

*2017 – 2021*

## WORK EXPERIENCE

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### Doctoral researcher at Aalto University

*since August 2023*

*Doctoral studies at Mathematics and System Analysis department are under supervision of Professor Kaie Kubjas.*

*Topic: Algebraic Statistics, Graphical Models*

### Research assistant at Aalto University

*June 2022 – July 2023*

*Research assistance at Computer Science department was under supervision of Professor Parinya Chalermsook.*

*Topics: Semialgebraic proofs, pattern-avoiding permutations*

### Teaching assistant at Aalto University

*2022*

*Courses: First course in probability and statistics, Graph theory, Matrix algebra*

### Personal tutor

*2017 – 2023*

*Personal tutor in mathematics for primary and junior high school students.*

## TALKS

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- April 2024, GSMAAC24, Berlin: *Matroid Stratification of ML Degrees of Independence Models*
- March 2024, Applied CATS seminar, KTH University: *Matroid Stratification of ML Degrees of Independence Models*
- January 2024, Finnish Mathematical Days, Espoo: *Matroid Stratification of ML Degrees of Independence Models*

## ATTENDANCE

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- November 2024, Workshop "Macaulay2 in the Sciences"
- July 2024, Workshop "Women in Algebraic Statistics"
- November 2023, Apprenticeship Week: Varieties from Statistics

## PUBLICATIONS

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With Oliver Clarke, Serkan Hosten, Janike Oldekop, *Matroid Stratification of ML Degrees of Independence Models*, Alg. Stat. 15 (2024) 199-223

## TEACHING AND SUPERVISION

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Advisor of Bachelor Thesis: Meeri Palokangas. Undirected Graphical Models for Discovering Statistical Dependencies in Continuous Air Pollutant and Weather Data. (2024)

## ORGANIZATION

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- Co-organizing "Algebra and Discrete Mathematics" seminar at Aalto University. (since autumn 2024)
- Vice-president of the student association "Women of Aalto". (2024-2025)

## SKILLS

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- **Programming skills:** Python, MatLab, Macaulay2
- **Language skills:** English (C1), Russian (native speaker), Finnish (A2)