

BARTOSZ MAJEWSKI

PhD Candidate at AGH University of Krakow,
Faculty of Applied Mathematics,
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EDUCATION

AGH University of Krakow

Ph.D. in Mathematics

Krakow, Poland

2021–2025

- Advisor: dr hab. Anna Dudek, prof. AGH
- Thesis: *Statistical inference for harmonizable processes with spectral mass concentrated on lines*
- Thesis submitted in April 2025. Currently awaiting review and defense

AGH University of Krakow

M.S. in Computational Mathematics

Krakow, Poland

2019–2021

- Thesis: *Numerical methods for approximation of Ito integrals of stochastic processes under fractional Sobolev regularity*
- Graduation with Honors

AGH University of Krakow

B.S. in Mathematics

Krakow, Poland

2016–2019

- Thesis: *Reflexivity of L^p space*

WORK EXPERIENCE

AGH University of Krakow

Research and teaching assistant at Faculty of Applied Mathematics (part-time)

Krakow, Polska

10.2023–Current

PUBLICATIONS

1. Dudek, A., **Majewski, B.**, Napolitano, A. (2024). Spectral Density Estimation for a Class of Spectrally Correlated Processes. *J. Time Ser. Anal.* 45: 884-909. doi: 10.1111/jtsa.12742

SUBMITTED MANUSCRIPTS

1. Dudek, A., Lenart, Ł., **Majewski, B.** Statistical properties of oscillatory process with stochastic both amplitude and time warping. *submitted on October 2024*. HAL: <https://hal.science/hal-04719645>
2. Dudek, A., **Majewski, B.** Asymptotic distribution and subsampling in spectral analysis for spectrally correlated processes. *submitted on August 2024*. HAL: <https://hal.science/hal-04675084>
3. Dudek, A., **Majewski, B.**, Napolitano, A. and Ombao, H. Inference for Signals exhibiting Irregular Statistical Cyclicity with Applications to Electrocardiograms. *submitted on April 2024*. HAL: <https://hal.science/hal-04495226>

TALKS

1. **Invited talk** at the scientific conference “24th European Young Statisticians Meeting”, Turin, Italy (21–25.07.2025)
2. Talk at the international scientific conference “44th Conference on Stochastic Processes and their Applications”, Wrocław, Poland (14–18.07.2025)
3. Talk at the scientific conference “XLIX Conference Mathematical Statistics”, Chęciny, Poland (9–12.12.2024)
4. **Invited lecture** at the student conference “III Student Scientific Conference ELEMENTS”, Krakow, Poland (25–26.10.2024)
5. **Invited talk** at the international conference “International Symposium on Nonparametric Statistics 2024”, Braga, Portuga (25–29.06.2024)
6. **Invited talk** at the international workshop “Third Symposium on Modern Statistical Methods: from Data to Knowledge”, Krakow, Poland (12–14.12.2023)
7. **Invited lecture** at the student conference “II Student Scientific Conference ELEMENTS”, Krakow, Poland (17–18.11.2023)
8. **Invited Talk** at the international workshop “Nonstationarity, cyclostationarity and their applications”, Nanterre, France (5–7.06.2023)
9. Talk at the KAUST-UCI-UCLA workshop on Statistical Imaging, Los Angeles, CA, United States (27.03.2023)
10. Talk at the international scientific conference “ENAR 2023 Spring Meeting”, Nashville, TN, United States (19–22.03.2023)
11. Talk at the international scientific workshop “The Sixteenth Workshop on Nonstationary Systems and Their Applications” (online participation), Gródek and Dunajcem, Poland (5–8.02.2023)
12. Talk at the scientific conference “XLVIII Conference Mathematical Statistics”, Będlewo, Poland (5–9.12.2022)
13. Talk at the student conference “5th prof. Antoni Hoborski Student Science Conference”, Krakow, Poland (15.11.2022)
14. Talk at the student conference “Student Scientific Conference ELEMENTS”, Krakow, Poland (4–6.11.2022)
15. **Invited lecture** at the student conference “10th National Workshop on Statistics and Data Analysis 2022”, Krakow, Poland (27.05.2022)

SEMINARS

1. Talk at the Séminaire Statistique, Aix-Marseille Université, Institut de Mathématiques de Marseille, France (10.03.2025)
2. Talk at the Biostatistics Group seminar, King Abdullah University of Science and Technology, Saudi Arabia (12.09.2022)
3. Several talks at the seminar of the Computational Mathematics and Analysis of Big Data Sets team, AGH University of Krakow (19.10.2021, 20.12.2022, 16.05.2023, 21.01.2025)

PARTICIPANT

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| 1. Doctoral Summer School Computation and Modelling, Wrocław, Poland | 4–8.07.2022 |
| 2. The 3rd Congress of Polish Statistics, Krakow, Poland | 26–28.04.2022 |
| 3. XLVII Conference Mathematical Statistics, Będlewo, Poland (online participation) | 28.11–3.12.2021 |

VISITED INSTITUTIONS

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| 1. Erasmus+ Staff Mobility For Teaching at Aix-Marseille Université, Marseille, France | 9–15.03.2025 |
| 2. Visiting Student in the Biostatistics Group, Statistic Program,
King Abdullah University of Science and Technology (KAUST), Saudi Arabia | 1–27.04.2023 |
| 3. Visiting Student in the Biostatistics Group, Statistic Program,
King Abdullah University of Science and Technology (KAUST), Saudi Arabia | 11–20.09.2022 |
| 4. Visiting Student in the Biostatistics Group, Statistic Program,
King Abdullah University of Science and Technology (KAUST), Saudi Arabia | 5–12.04.2022 |

TEACHING

Bachelor's level at AGH University of Krakow, Poland

- *Introduction to Probability Theory* [PL] (2023/2024, 2024/2025)
- *Probability Theory* [PL] (2023/2024, 2024/2025, 2025/2026)
- *Programming fundamentals* [PL] (2022/2023)

Master's level at AGH University of Science and Technology

- *Python for Data Science* [EN] (2025/2026)
- *Stochastic Processes* [PL] (2022/2023, 2023/2024, 2024/2025, 2025/2026)
- *Mathematical statistics* [PL] (2023/2024)

Teaching abroad

- *Bootstrap for Time Series* [EN] (Aix-Marseille Université, France, March 2025)

Legend: [PL] – taught in Polish, [EN] – taught in English

REFEREEING

Peer-reviewed scientific journals:

- *EURASIP Journal on Advances in Signal Processing* (2025)
- *Stochastics* (2025)
- *Annals of Applied Statistics* (2024)

SCHOLARSHIPS AND AWARDS

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| • Nomination to represent Poland at the “24th European Young Statisticians Meeting” by the Statistics Committee of the Polish Academy of Sciences | 2025 |
| • TOP 5 Nomination in the category <i>Exercise Leaders</i> in the competition “Laur Dydaktyka” at AGH University of Krakow, Poland | 9–01.2025 |
| • 2nd place in the presentation competition for young scientists at “XLIX Conference Mathematical Statistics”, Chęciny, Poland | 9–12.12.2022 |

- 3rd place in the presentation competition for young scientists at “XLVIII Conference Mathematical Statistics”, Będlewo, Poland 5–9.12.2022
- 3rd place in the presentation competition for students at “Student Scientific Conference ELEMENTS”, AGH University of Krakow, Poland 4–6.11.2022
- AGH UST Rector’s scholarship for the best students 2019/2020
- AGH UST Rector’s scholarship for the best students 2018/2019

CONFERENCE ORGANIZATION

- Member of the Organizing Committee of the 50. Conference Mathematical Statistics, (Chęciny, Poland) 8–12.12.2025
- Member of the Local Organizing Committee of Third Symposium on Modern Statistical Methods: from Data to Knowledge, (Krakow, Poland) 13–14.12.2023
- Member of the Organizing Committee of the Student Conference DwuMIan, (online) 26–27.03.2022

OTHER PROFESSIONAL ACTIVITIES

- Vice chairman of Faculty Council of Doctoral Students Government, Faculty of Applied Mathematics, AGH University of Krakow, Poland 01.2025–04.2025
- Member of Scientific Discipline Board for Mathematics, AGH University of Krakow, Poland 12.2022–04.2025
- Chairman of Faculty Council of Doctoral Students Government, Faculty of Applied Mathematics, AGH University of Krakow, Poland 01.2023–12.2024
- Member of the Local Organizing Committee of Third Symposium on Modern Statistical Methods: from Data to Knowledge, AGH University of Krakow, Poland 13–14.12.2023
- Vice chairman of Faculty Council of Doctoral Students Government, Faculty of Applied Mathematics, AGH University of Krakow, Poland 01.2022–12.2022
- Member of the Organizing Committee of the Student Conference DwuMIan, Poland, (event took place online) 26–27.03.2022