Mykhaylo M Malakhov

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EDUCATION

UNIVERSITY OF MINNESOTA
PHD IN BIOSTATISTICS
Expected 2025 | Minneapolis, MN

ANDREWS UNIVERSITY
BS IN MATHEMATICS
May 2020 | Berrien Springs, MI
Minor in Computing

BUDAPEST SEMESTERS IN MATHEMATICS
STUDY ABROAD
Fall 2019 | Budapest, Hungary

LINKS

ORCiD:// 0000-0002-6856-3913
Google Scholar:// e5Q7sMQAAAAJ&hl
GitHub:// mykmal
LinkedIn:// mykmal
Facebook:// mykhaylo.malakhov
Instagram:// myk_mal

CAMPUS LEADERSHIP

PI MU EPSILON | PRESIDENT
2018 – 2020
○ Organized π day, game nights, etc.

ENGINEERS WITHOUT BORDERS | VP AND TREASURER
2017 – 2019
○ Oversaw initial phases of solar energy project for Madagascar school
○ Raised about $20,000

EIGEN* | MATHEMATICS PRESIDENT
2017 – 2018
○ Planned math-related colloquia, events
○ Organized first AU Putnam Competition

CODESHACK | FOUNDER
2016 – 2017
○ Co-founded computer science education program at the local elementary school
○ Obtained Google igniteCS funding

SKILLS

PROGRAMMING
Proficient:
R • MATLAB • LaTeX
Learning:
Python • Java • SAS

HUMAN LANGUAGES
Russian • English • Spanish

EXPERIENCE

UMN SCHOOL OF PUBLIC HEALTH | PREDOCTORAL TRAINEE
2020 - present | Minneapolis, MN
- Trainee through the **Interdisciplinary Biostatistics Training in Genetics and Genomics** program
- Funded by a **National Institutes of Health** NIGMS T32 Training Grant
- Mentors: Wei Pan and Saonli Basu (University of Minnesota)

INSTITUTE FOR PURE & APPLIED MATHEMATICS | RESEARCHER
Summer 2019 | Los Angeles, CA
- Developed **data-driven techniques** for attractor reconstruction and model calibration
- Successfully inferred combustion reaction coefficients from incomplete data, thereby **computationally solving an experimentally infeasible problem**
- Mentors: Robert Martin and Daniel Eckhardt (Edwards Air Force Base)

WILLIAMS COLLEGE | RESEARCH INTERN
Summer 2018 | Williamstown, MA
- Project 1: demonstrated how to improve management outcomes for **white-nose syndrome** in bats by considering metapopulation dynamics
- Project 2: established guidelines for **transboundary infectious disease management** when multiple administrative jurisdictions set different objectives
- Mentors: Julie C. Blackwood (Williams) and Katriona Shea (Penn State)

ANDREWS UNIVERSITY | UNDERGRADUATE RESEARCH FELLOW
Summer 2017 | Berrien Springs, MI
- Studied the **effects of climate change** on seabird populations
- Proved that egg cannibalism and egg-laying synchrony can yield backward bifurcations, which **allow gull colonies to survive** at higher sea temperatures
- Mentors: Shandelle M. Henson (Andrews) and J. M. Cushing (Arizona)

SELECTED AWARDS

National
2018 Barry M. Goldwater Scholarship ($15,000)
University of Minnesota School of Public Health
2020 Dean's PhD Scholars Award ($5,000)
2020 Jean Roberts Biostatistics Fellowship ($13,255)
Andrews University
2018 Harold T. Jones Scholarship for highest mathematical excellence ($2,250)
2018 Louis Ulloth Scholarship for most significant leadership ($2,250)
2016 Full tuition ACT/SAT Scholarship ($145,000)

SELECTED PUBLICATIONS

[1] J. C. Blackwood, **M. M. Malakhov**, J. Duan, J. J. Pellett, I. Phadke, S. Lenhart, C. Sims, and K. Shea, "Governance structure affects transboundary disease management under alternative objectives," in revision.

[2] J. Duan, **M. M. Malakhov**, J. J. Pellett, I. S. Phadke, J. Barber, and J. C. Blackwood, "Management efficacy in a metapopulation model of white-nose syndrome," *Natural Resource Modeling*, e12304, Apr. 2021.

[3] **M. M. Malakhov**, B. R. Fitzpatrick, R. A. Lopez, and A. Shivkumar, "Attractor reconstruction and empirical parameter inference for hydrogen-oxygen chemistry," Air Force Research Laboratory, Technical Report AD1098889, 2020.