Dadashova Kamala

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Raleigh, NC27695
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Education

Ph.D. in Applied Mathematics, *North Carolina State University. 3.92/4.00*. 2020-2024
Dissertation: Enhancement of Predictive Capabilities for Pharmaceutical Modeling via Sensitivity Analysis, Parameter Subset Selection, and Virtual Population Approaches
Advisors: Dr. Ralph Smith and Dr. Mansoor Haider

M.S. in Mathematics, *Western Kentucky University. 4.00/4.00* 2018-2020
Thesis: *h*-Discrete Fractional Model of Tumor Growth and Anticancer Effects of Mono and Combination Therapies
Advisor: Dr. Ferhan Atıcı

B.A. in Mathematics Education, *Baku Engineering University. 3.97/4.00* 2013-2018
Senior Thesis: Random Walk and Their Applications
Advisor: Dr. Humbat Aliyev

Research Interests

Mathematical Biology, Uncertainty Quantification, Bayesian statistics, Machine Learning

Work and Teaching Experience

Research Experience

Graduate Research Asssistant Fall 2021-
Pfizer QSP intern Summer 2023

Teaching Experience

North Carolina State University
Instructor, Calculus I (MA131) 2023- 2024
Lecture Assistant, Calculus I (MA141) Spring 2023
Instructor, Precalculus (MA 107) Fall 2022
Teaching Assistant, two sections of recitation for Calculus II (MA241) Fall 2021
Instructor, Precalculus Algebra and Trigonometry (MA111) Summer 2021
Teaching Assistant, two sections of recitation for Calculus II (MA241) Spring 2021
Teaching Assistant, two sections of recitation for Introduction to Finite Mathematics (MA114) Fall 2020

Western Kentucky University

Teaching Assistant, two sections of recitation for Calculus II (MATH137)	Spring 2020
Teaching Assistant, three sections of recitation for Calculus II (MATH137)	Fall 2019
Teaching Assistant, two sections of recitation for Calculus I (MATH136)	Spring 2019
Teaching Assistant, two sections of recitation for Honors Calculus II (MATH137)	Fall 2018

Publications

K. Dadashova, R.C. Smith, M.A. Haider, "Local Identifiability Analysis, Parameter Subset Selection and Verification for a Minimal Brain PBPK Model", *Bulletin of Mathematical Biology*, 86(12), 2024.

F. M. Atıcı, **K. Dadashova**, and J. M. Jonnalagadda, "Linear Fractional-Order h-Difference Equations", *International Journal of Difference Equations*, 15(2), 2020, pp. 281-300

F. M. Atıcı, N. Nguyen, **K. Dadashova**, S. Pedersen, and G. Koch, "Pharmacokinetics and Pharmacodynamics Models of Tumor Growth and Anticancer Effects in Discrete Time", *Computational and Mathematical Biophysics*, 8(1), 2020, pp. 114-125

Presentation and Posters

Presentations

Parameter Subset Selection with Application to Bayesian Inference for mPBPK Model. QSP/T Seminar Series, GSK. — Spring 2024

Development of a QSP Model for VZV Vaccine Immunogenicity — Summer 2023
Pfizer. Boston, MA.

Local Identifiable Based Parameter Subset Selection with Verification for mPBPK Model — Spring 2023
Takeda. Virtual.

Parameter Subset Selection for mPBPK Model — Spring 2022
SIAM Conference on Uncertainity Quantification (UQ22). Atlanta, GA.

Tumor Growth Model with Fractional h-Difference Equations — Fall 2019
39th Annual Mathematics Symposium. Western Kentucky University.

A Study of Pharmacodynamics Model on hN, — Fall 2019
International Symposium on Biomathematics and Ecology, Education and Research. University of Wisconsin.

Posters

Parameter Subset Selection for identifiabbility analysis in mPBPK — Fall 2023
Mathematics in Digital Twins (MATH-DT Workshop), George Mason University.

Parameter Subset Selection for mPBPK Model — Fall 2023
American Conference on Pharmacometrics (ACoP14). National Harbor, MD.

Awards and Honors

NSF Travel Grant. For attending the Mathematical Opportunities in Digital Twins workshops. George Mason University, Fairfax, VA — Fall 2023

Department Travel Grant. For attending the ACoP14 conference, National Harbor, MD — Fall 2023

SIAM Travel Award. For attending the SIAM UQ conference. Atlanta, GA — Spring 2022

NSF Grant (SAMSI). For research assistantship. — Spring 2022

Travel Grant to attend International Symposium on Biomathematics and Ecology Education and Research. Ogden College of Science and The Graduate School. Western Kentucky University, Bowling Green, KY — Fall 2019

E. Margaret Curtis-Howe Scholarship. For a good academic standing. Western Kentucky University, Bowling Green, KY — Fall 2019

Math Department Award, Powers Scholarship. For a good academic standing. Western Kentucky University, Bowling Green, KY — Spring 2019

Honorary Degree. For completing all semesters as a top student. Baku Engineering University, Baku, Azerbaijan — Summer 2018

Second and Third Places. University-wide Mathematics Olympiads. Baku Engineering University, Baku, Azerbaijan — 2016–2015

Merit-Based Scholarship for Undergraduate Studies. Awarded by the Azerbaijani Government, Azerbaijan — 2013–2017

Extracurricular and Leadership Activities

Vice President of the American Mathematical Society (AMS). Graduate Student Chapter, NCSU. — Spring 2023

Member. Student Chapter of SIAM, NCSU — 2020–Present

President of the American Mathematical Society (AMS). Graduate Student Chapter, WKU. — 2019–2020

Member. Student Chapter of SIAM, Western Kentucky University — 2018–2020

Volunteer. Fourth International Scientific Conference of Young Researchers Baku, Azerbaijan — Spring 2017

Member. Baku Engineering University Student Scientific Society — 2015–2018

Technical Skills

Programming Skills: Python, R, MATLAB, C#, Mathematica

Libraries: Keras, Tensforflow, Scikit-learn, Pandas, Numpy, ggplot