Sofya Zaytseva

LIMITED TERM ASSISTANT PROFESSOR · UNIVERSITY OF GEORGIA

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Employment

2019 -	**Limited Term Assistant Professor**, Department of Mathematics, University of Georgia
2014-2019	**Graduate Research Assistant**, Applied Science Department, William & Mary
2016	**DHS HS-STEM Intern**, Department of Homeland Security, ANSER
2013-2014	**Graduate Teaching Assistant**, Department of Mathematics, University of North Carolina at Wilmington
2013-2014	**Statistical Programming Intern**, Biostudy Solutions
2012	**Statistical Programming Intern**, PharPoint Research Inc

Education

William & Mary — Williamsburg, VA
PHD APPLIED SCIENCE — *Aug 2014 – Aug 2019*

University of North Carolina at Wilmington — Wilmington, NC
MS APPLIED MATHEMATICS — *Aug 2013 – July 2014*

University of North Carolina at Wilmington — Wilmington, NC
BS MATHEMATICS — *Aug 2009 – May 2013*

Teaching Experience

Spring 2021	**Arithmetic and Problem Solving (MATH 5001, 2 sections)** , Instructor	*University of Georgia*
Fall 2020	**Calculus III (MATH 2500, 2 sections)** , Instructor	*University of Georgia*
Spring 2020	**Calculus II (MATH 2260, 1 section)** , Instructor	*University of Georgia*
Fall 2019	**Pre-Calculus (MATH 1113, 3 sections)** , Instructor	*University of Georgia*
Spring 2018	**Linear Algebra (1 section)**, Instructor	*William & Mary*

Outreach & Professional Development

SERVICE AND OUTREACH

2020	**COMAP**, Triage Judge for the Mathematical Contest in Modeling (MCM)
2018-2019	**William & Mary**, Math tutor for K-12 students
2017-2018	**William & Mary**, Taught workshops on R and Matlab for the EXTREEMS QED Program for undergraduate research

DEVELOPMENT

2020	**Project NeXT (New Experiences in Teaching)**, Participant
2020	**University of Georgia**, Part of "Designing Authentic Learning Experiences in Digital Environments" Faculty Interest Group
2019 -	**University of Georgia**, Part of M.A.L.T (math active learning team) faculty group
2019	**University of Georgia**, Completed "Diversity at UGA: Beyond the Number" workshop
2019	**IPAM (UCLA)**, IPAM Collaborative Workshop for Women in Mathematical Biology
2018	**Virginia Tech Richmond Center**, Three-day workshop "Mapping with Drones" on federal sUAS regulations, sUAS platforms, sensors, image processing software techniques an sUAS project workflows.
2017	**Institute for Theory and Practice of International Relations, William & Mary**, State Department's Diplomacy Lab

Awards, Fellowships, & Grants

2020	**UGA Provost's Affordable Course Materials Grant for Calculus II**, University of Georgia	*$5000*
	Summer Research for Women in Mathematics, MSRI	
2019	**Graduate Studies Advisory Board Award for Excellence in Scholarship in the Natural and Computational Sciences**, William & Mary	*$ 1,000*
	Travel Award, Joint Mathematics Meeting	*$ 500*
2017	**Award for Excellence in the Natural Computational Sciences**, William & Mary	*$ 500*

Publications

Ciftci, S, Robbins M., Zaytseva S. 2020. Devotion at Sub-national Level: Ramadan, Night-time Lights, and Religiosity in Egyptian Governorates. International Journal Of Public Opinion Research

Blower, S., Sindi, S., Agusto, F., Goldberg, A., Ortega, O., Ponce, J., Zaytseva, S. 2020. How do interventions impact malaria dynamics between neighboring countries? A case study with Botswana and Zimbabwe. In Using Mathematics to Understand Biological Complexity, Springer

Zaytseva, S, Shaw L.B., Shi, J. 2019. Model of pattern formation in marsh ecosystems with nonlocal interactions. Journal of mathematical biology, 1-32.

Zaytseva, S, Shaw L.B., Lipcius R., Shi, J., Kirwan, M.L. 2019. Pattern formation in marsh ecosystems modeled through the interaction of marsh vegetation, mussels and sediment.(submitted)

Zaytseva, S, Shaw L.B., Lipcius R. 2020. Analysis of oyster reef patterns in remotely sensed data.(in preparation)

Black, K., Adams, M., Basheer, A., Kazanci, C., Patten B., Whipple S., Zaytseva S. 2020. A Continuous Model Of Behavioural Phenotype: An Example Of Interaction Between The Butterfly *Pieris brasicae* And *Trichogramma* Wasps. (in preparation)

Presentations

Invited Talks

January 2021. *Investigation of Pattern Formation in Intertidal Oyster Reefs*. Invited talk in the AMS Special Session on Recent Advances in Ecological Modeling, 2021 Joint Mathematical Meeting

August 2020. *Investigation of Pattern Formation in Intertidal Oyster Reefs*. Invited talk as part of the mini-symposium on "Patterns and Dynamics in Spatially Explicit Ecological Systems" at the SIAM Conference on the Mathematics of Planet Earth

January 2019. *Model of pattern formation in marsh ecosystems with nonlocal interactions*. Invited talk in the AMS Special Session on Mathematical Investigations of Spatial Ecology and Epidemiology.

March 2018. *Pattern formation in Marine Ecology*. Invited talk: Department of Mathematics, Virginia Commonwealth University, Richmond, Virginia

July 2016. *Using a System of Reaction Diffusion Equations with Nonlocal Interactions to Model Pattern Formation in the York River Tidal Marshes*. Invited talk in the special session on "Pattern Formation and Recognition in Structured Information and Biological Systems with External Forcing.", 11th American Institute of Mathematical Sciences (AIMS) Conference, Orlando, Florida

Select Contributed Presentations

Zaytseva, S. 2019. "Imagery Analysis to Investigate Oyster Reef Pattern Formation", 2019 SIAM Conference on Applications of Dynamical Systems, Snowbird, Utah

Zaytseva, S. 2017. "Pattern formation in marsh ecosystem", 2017 SIAM Conference on Applications of Dynamical Systems, Snowbird, Utah

Zaytseva, S. 2017. "Pattern formation in marsh ecosystems modeled through the interaction of marsh vegetation, mussels and sediment.", 16th Annual Graduate Research Symposium, College of William & Mary

Zaytseva, S. 2017. "Spatial patterning in the York River tidal marshes through the interaction of cordgrass, mussels and sediment", BAMM! Biology and Medicine through Mathematics Conference, Richmond, Virginia