Alexander Shashkov

Education	University of Cambridge MASt in Pure Mathematics funded by Churchill Scholarship	June 2025	
	Williams College BA in Mathematics and Computer Science, GPA 3.94/4.00. Magna Cum Laude, Highest Honors in Mathematics	June 2024	
	Magna Cum Laude, fingliest fioliors in Mathematics.		
Research Experience	Williams CollegeSeptember 2022 – August 2023Undergraduate thesis work in analytic number theory under Steven J. Miller.University of VirginiaJune 2022 – July 2022Research in analytic number theory under Ken Ono and Jesse Thorner.Williams CollegeJune 2021 – August 2021Research in analytic number theory and random matrix theory under Steven J. Miller.MIT Computer Science and Artificial Intelligence LabJune 2020 – June 2021Research in applied machine learning under Erik Hemberg and Una-May O'Reilly.		
Preprints	1. Low lying zeros of Rankin-Selberg <i>L</i> -functions. Submitted.		
PUBLICATIONS	 Low Iying zeros of Rankin-Selberg L-functions. Submitted. Extending support for the centered moments of the low lying zeros of cuspidal newforms (with Peter Cohen, Justine Dell, Oscar E. González, Geoffrey Iyer, Simran Khunger, Chung-Hang Kwan, Steven J. Miller, Alicia Smith Reina, Carsten Sprunger, Nicholas Triantafillou, Nhi Truong, Roger Van Peski, Stephen Willis, Yingzi Yang). Algebra & Number Theory. Accepted. Modular forms and an explicit Chebotarev variant of the Brun-Titchmarsh theorem (with Daniel Hu and Hari Iyer). Research in Number Theory (2023). Adversarial agent-learning for cybersecurity: a comparison of algorithms (with Erik Hemberg, Miguel Tulla, and Una-May O'Reilly). The Knowledge Engineering Review (2023). Limiting Spectral Distributions of Families of Block Matrix Ensembles (with Teresa Dunn, Henry L. Fleischmann, Faye Jackson, Simran Khunger, Steven J. Miller, Luke Reifenberg, and Stephen Willis). PUMP Journal of Undergraduate Research (2022). Self-similar sets with arbitrary Hausdorff and box-counting dimension. The Pi Mu Epsilon Journal (2021). Analyzing Student Reflection Sentiments and Problem-Solving Procedures in MOOCs (with Robert Gold, Erik Hemberg, ByeongJo Kong, Ana Bell, and Una-May O'Reilly). Proceedings of the Eighth ACM Conference on Learning @ Scale (2021). 		
Research Talks	 Extending support for the centered moments of the low lying forms. 34th Automorphic Forms Workshop, March 2022. Extending support for the centered moments of the low lying forms (with Simran Khunger). Maine-Quebec Number Theor 2021. Limiting Spectral Distributions of Families of Block Matrix E Dunn, Henry Fleischmann, and Stephen Willis). Young Mathe August 2021. 	zeros of cuspidal new- zeros of cuspidal new- y Conference, October Ensembles (with Teresa ematicians Conference,	

	Eighth ACM	I Conference on Learning @ Scale, June 2021.		
Conferences	Park City Math Institute		July – August 2022	
Attended	34th Automorph	March 2022		
	Maine-Quebec N	October 2021		
	Eighth ACM Co	onference on Learning @ Scale	June 2021	
Awards	Rosenburg Prize	e in Mathematics, Williams Math Dept.	June 2024	
	Phi Beta Kappa	June 2024		
	Sigma Xi, Willia	ams College	June 2024	
	Churchill Schole	arship	December 2023	
	Goldwater Scho	larship	April 2023	
Other	Teaching Asst.	Math 250 Linear Algebra	Williams College	
Experience	Teaching Asst.	Math 409 Putnam Seminar	Williams College	
	Teaching Asst.	Math 383 Complex Analysis	Williams College	
	Referee	Journal of Number Theory		
	Referee	PUMP Journal of Undergraduate Research		
	Mentor	Prison Math Project		
Relevant	Languages: English (native speaker), Russian (intermediate)			
Skills	Programming: C++, Java, Python			

• Analyzing student reflection sentiments and problem-solving procedures in MOOCs.