

OPEN HOUSE

Mathematics, Statistics, Applied
Mathematics & Statistics and Scientific
Computation

11:00 AM - 12:00 PM



**FEARLESSLY
FORWARD**

INTRODUCTIONS



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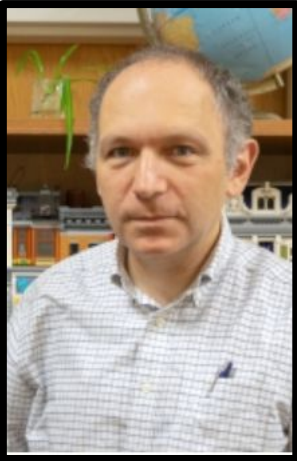


INTRODUCTIONS



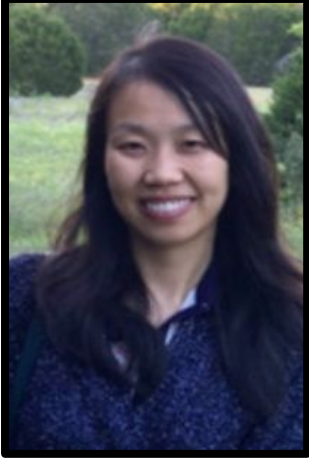
Dr. Doron Levy

Chair



Dr. Leonid Koralov

Associate Chair &
Math Program Director



Dr. Lizhen Lin

Statistics
Program Director



Dr. Radu Balan

AMSC
Program Director



Welcome from **Doron Levy**



Math Department Chair

Brin Mathematics Research Center Director



AGENDA

1

**Program and Application
Requirements**

2

**Financial Aid
MathQuantum**

3

**Questions and
Answers Portion**

Math and Stat Programs

Program	Degrees Available	Application Deadline	Required	Recommended	Optional
Mathematics (Pure)	PhD in Math	December 10, 2024	<ul style="list-style-type: none"> → TerpEngage Application → GPA of 3.0 	<ul style="list-style-type: none"> → Identify faculty members you'd like to work with 	<ul style="list-style-type: none"> → Additional letters of Recommendation
Statistics (Pure)	PhD in Stat MA in Stat	January 10, 2025	<ul style="list-style-type: none"> → Unofficial Transcripts → 3 Letters of Recommendation → Personal Statement → CV/Resume → Supplementary Application (list of textbooks used)* → Personal Experience Essays → English Speaking Scores for International Students 	<ul style="list-style-type: none"> → Identify an interest area → Strong mathematical or statistical background → Research Experience 	<ul style="list-style-type: none"> → Writing Samples → GRE Math Subject Score >700

*There are two places on the applications for the supplementary application. Uploading a PDF is fine. Type in one or two textbooks in the electronic portion.

AMSC Program

Program	Concentration	Degrees Available	Application Deadline	Required	Recommended	Optional
Applied Mathematics & Scientific Computation	Applied Mathematics	PhD MS	December 17, 2024 for all programs	<ul style="list-style-type: none"> → TerpEngage Application → GPA of 3.0 → Unofficial Transcripts → 3 Letters of Recommendation → Personal Statement → CV/Resume → Personal Experience Essays → English Speaking Scores for International Students 	<ul style="list-style-type: none"> → Identify faculty members you'd like to work with → GRE General or Subject Score → Identify an application area → Research Experience → Suggest Coursework: Linear Algebra, Advanced Calculus, Numerical Methods, Differential Equations, Probability → High GPA, no grades below B → Diversity of courses in math/application area → High TOEFL score, if required 	<ul style="list-style-type: none"> → One additional letter of Recommendation
	Applied Statistics	PhD MS				
	Scientific Computation	PhD MS Certificate				



Application Requirements Details

- Application Fee \$75
- Unofficial Transcripts
- Statement of Purpose
- 3 Letters of Recommendation
- English Language Test Scores
(International Students Only)
- Supplementary Application



Financial Aid

Master's Students: We do not offer aid or department fellowships. Out of state tuition is approximately \$19,000 per year.

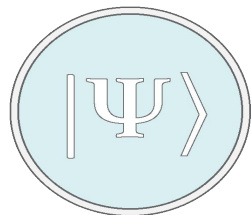
Ph.D. Students: Teaching Assistantship with a ~\$28,300 annual stipend and 10 credits of tuition remission per fall and spring. Students are responsible for paying semester fees (approximately \$350-\$700).

- **Dean's Fellowship:** \$5,000 per year for the first two years
- **Other Fellowships:** Research Assistantships, MathQuantum

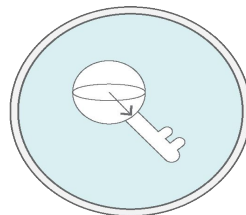
Math⊗Quantum

- **What?** Graduate fellowship to do mentored research at the intersection of mathematics and quantum information science (QIS)
 - ◆ **Goal:** Tackle Math challenges inspired by QIS. Tackle QIS problems through advanced Math
- **Who?** All (Applied) Math students interested in exploring quantum information science.
- **Relevant techniques** Algebra/Representation Theory, Nonlinear Analysis, PDEs, Scientific Computing, and Stochastic Analysis, Data Science, Machine Learnings, Statistics

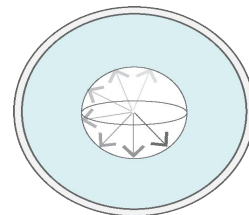
NO BACKGROUND IN QUANTUM REQUIRED!



Algorithms



Cryptography



Dynamics/
Systems



Math⊗Quantum

Benefits	How to Apply
<ul style="list-style-type: none">💰 \$37,000 stipend + tuition for 1 year🧠 \$1,000 for conference/workshop attendance🔬 Mentored research project in MathQuantum📖 Access to 3 new MathQuantum classes (to help bridge into QIS)🔧 One-on-one and group professional development (communication, careers, etc.)📝 Teaching, mentoring, leadership, and outreach opportunities🎉 Community building events/activities👓 Industry/government internship opportunities	<p>Eligibility: UMD grad student (can apply as prospective) ~4 fellowships available yearly until 2028</p> <ul style="list-style-type: none">• For stipend and tuition: U.S. citizen or permanent resident <p>Application: mathquantum.umd.edu/apply</p> <ul style="list-style-type: none">• Due December 6th• Google Form, 2 short statements, CV, transcripts, letter(s) of recommendation <p>More Info: mathquantum.umd.edu/fellowship One-on-one meeting with Daniel: dsvolpe@umd.edu</p>



Student Perspective: Meenakshi Krishnan

- Year: Fourth
- Program: AMSC
- Advisor(s): Ramani Duraiswami
- Research interests: Numerical analysis of PDEs and machine learning
- What I do outside the department: Read, walk around, go to comedy shows, hang out with friends.



Student Perspective: Morgan Bryant

- Year: Fifth
- Program: MATH
- Advisor(s): Chris Laskowski
- Research interests: Logic & Ramsey Theory
- What I do outside the department: Learn other languages, cook challenging dishes, and fossil hunting with my dog

Student Perspective: Shrestha Pal

- Year: Second
- Program: STAT
- Advisor(s): Dr.Lin/Dr.Lahiri
- Research interests: Applied Statistics, Bayesian, Small Area Estimation
- What I do outside the department:
Zumba or fitness classes at Eppley,
Cooking, explore DC, sleep!





Submitted Questions



How can I receive a fee waiver?

MATH/STAT: (International Students Only) You can request a fee waiver if you send us an email with the subject, **Fee Waiver Request- Your Last Name**.

Send in your unofficial transcript and any other documents you think would be helpful (resume, letter of recommendation, research papers, etc) to our email math-grads@umd.edu.

Math: You will be notified the week of **December 2**.

Stat: You will be notified the week of **January 6**.

MATH/STAT/AMSC: (Domestic Students Only) FreeApp is available to students to apply for a waiver. More information here: <https://gradschool.umd.edu/feewaiverinformation>

What are opportunities for summer aid?

- We offer teaching and grading jobs over the summer. All teaching is virtual over the summer.
- Senior students (3rd year +) in the program are given priority for summer assignments.
- Students can work with a faculty member over the summer and conduct research. The faculty member and student agree on the summer stipend.



What does UMD offer in terms of Machine Learning?

- Professors who research machine learning: Yun Yang, Victor Albert, Dan Butts, Artem Chernikov, Kunpeng Zhang, Bill Fagan, Haizhao Yang, Tom Goldstein, Radu Balan, Aravind Srinivasan, Michael Cummings, Wojciech Czaja
- Topics courses are offered that focus on machine learning. For example, this fall Wojciech Czaja is teaching *Mathematical Methods in Machine Learning*

How do I find an advisor?

- Prospective students do not need to reach out to advisors before submitting their applications.
- Math and Stat students must have at least one advisor in Math or Stat, but can also work with a co-advisor in another department.
- AMSC students can work with any advisor who has been approved by the AMSC committee, which can be faculty members in different departments.
<https://amsc.umd.edu/people/faculty.html>
- See faculty research profiles here:
https://docs.google.com/spreadsheets/d/12j6DPDI_Lv1iajZk0Ck4nNt_4V14PPHi9FfOUF5rnY4/edit?usp=sharing

Please unmute or type a question in a chat

Start your question by directing it to:

- **Chair:** *Dr. Levy*
- **Student Representatives:** *Shrestha (Stat), Morgan (Math), Meenakshi (AMSC)*
- **Math Quantum Coordinator:** *Daniel*
- **Program Coordinators:** *Trystan and Jemma*
- **Directors**
 - ◆ *MATH: Dr. Koralov*
 - ◆ *AMSC: Dr. Balan*
- **General Question for Any Presenter**

THANK YOU



UNIVERSITY OF
MARYLAND

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FORWARD**