

THE MATH ALLIANCE



DR. DAVID GOLDBERG

Director

The year is speeding by. There is so much going on in the world. The old expression, or curse, “May you live in interesting times” doesn’t even seem ironic enough. While I often use this space to describe what I see going on, and how it relates to the work of the Math Alliance, I am going to refrain from that this month. I think there will be plenty of opportunity for that in future newsletters, but for now I just want to call your attention to the things we are doing that you can be involved with.

The 2025 F-GAP program is up and running! This is, arguably, the most important activity in the Math Alliance community and we have helped hundreds of Scholars find their way to programs in which they have thrived over the last 11 years. This program will match a Scholar who will graduate from their BS, or terminal MS, program, with a mentor in a doctoral granting department to help the Scholar navigate the process of applying to graduate programs. F-GAP Scholars need to be nominated by a Mentor, and Mentors should read the selection criteria before nominating a student.

Save the Date:

2025 Field of Dreams
Conference
November 7-9
Atlanta, GA

Students, if you think this program is right for you, discuss the possibility of being nominated with your Math Alliance Mentor. Those **Scholars nominated for F-GAP by March 28** will be invited to the Career Paths Workshop, May 29-30 in Chicago.

Speaking of which, the planning for the Career Paths Workshop at Institute for Mathematical and Statistical Innovation (IMSI) is continuing to develop. We have confirmed a very interesting set of plenary speakers, which will be announced soon, and we expect the program to run just as it has for the last several years. When IMSI has this year’s Career Paths Workshop website up, we will have a link to it on our webpage.

Finally, we have our Field of Dreams Agenda Committee hard at work planning this year’s conference, which will be November 7-9, in Atlanta. So, save the date. We should be announcing the plenary speakers for the Field of Dreams sometime in May, I believe, if not sooner. Mentors, we will call on you, as usual, to identify students who should be part of the conferences, and that process will start towards the end of the semester or the beginning of the summer.

For now, that is the news. I am sticking to one of my “compass spirituals” at this moment: “We’re going to keep on walking forward, never turning back.”

What's Happening Next?

- **Math For All Conference** April 5, 2025
- **Infinite Possibilities Conference** IMSI (Univ. of Chicago)
April 11-12, 2025
- **Career Paths Workshop** Univ. of Chicago May 29-30
- **2025 Field of Dreams Conference** (FOD 2025) Atlanta, GA
November 7-9, 2025

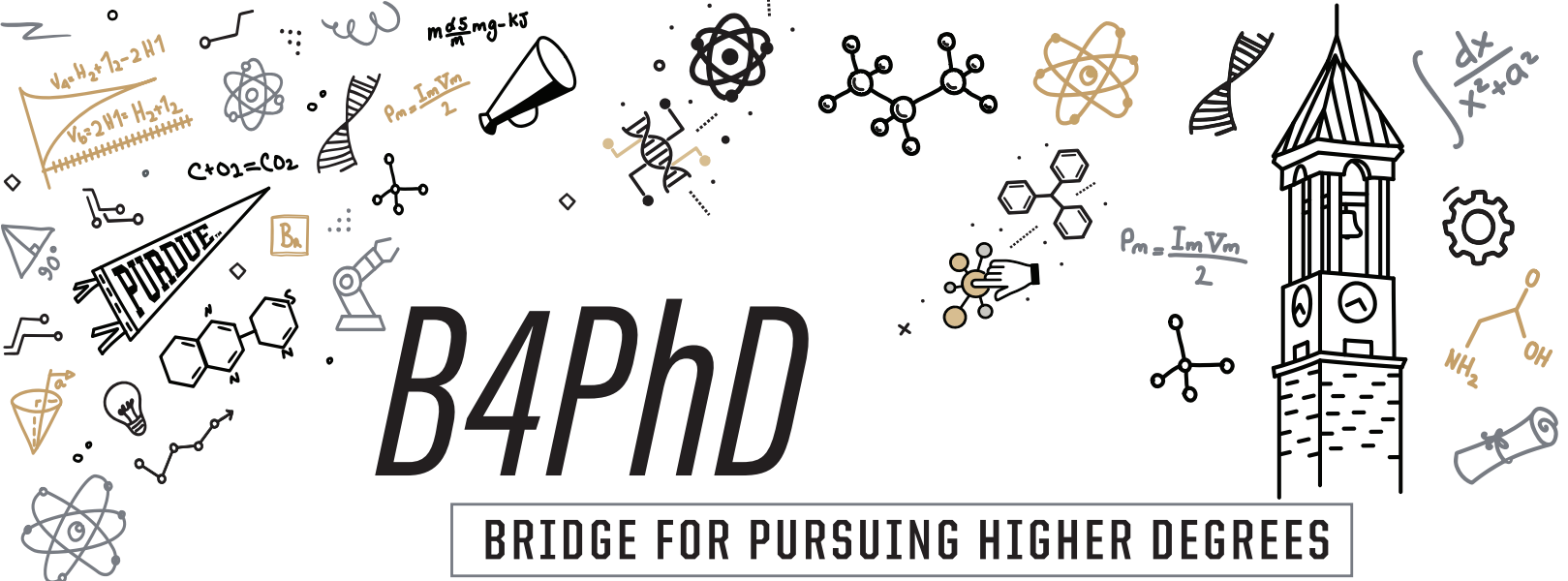
ICERM WORKSHOP

ICERM welcomes participant applications for a topical workshop, "Uncertainty Quantification for Mathematical Biology", held during May 5-9, 2025, on-site at ICERM in Providence, RI, USA.

Workshop details: icerm.brown.edu/program/topical_workshop/tw-25-uqmb

The core goal of this workshop is to foster research and community collaborations at the intersection of computational and mathematical biology, UQ algorithms, and data-driven learning. This workshop aims to galvanize advancements across these fields. The week-long event will feature speakers, tutorials, panel and small-group discussions, and a poster session.

ICERM welcomes applications from faculty, postdocs, graduate students, industry scientists, and other researchers who wish to participate. To apply to attend, please submit an application through the website linked above. Some funding may be available for travel and lodging.

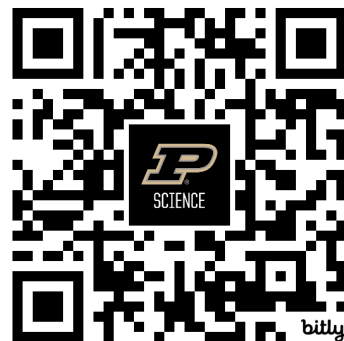


A GRADUATE SCHOOL FOCUSED MENTORING COMMUNITY
AT PURDUE UNIVERSITY COLLEGE OF SCIENCE

UNDERGRADS:
INTERESTED IN RESEARCH AND GRADUATE SCHOOL?

The Purdue University College of Science invites prospective graduate students to join us for a free and online mentoring program designed to help you prepare for graduate school—from the application process, to becoming a grad student, to thriving on your way to your graduate degree

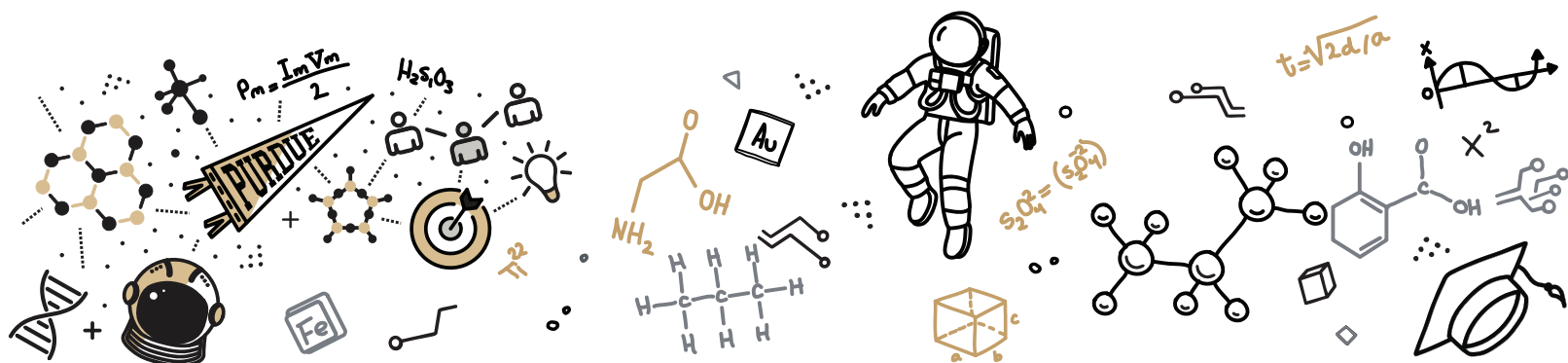
If you are a US citizen or permanent resident graduating with your undergraduate degree in Science or Math in May 2026 or later, you're eligible to join as a Bridge for Pursuing Higher Degree (B4PhD) Scholar.



LEARN MORE AT <https://purduesci.com/b4phd>

PURDUE
UNIVERSITY

College of Science





THE POLYTECHNIC APPROACH “LEARNING BY DOING”

Cal Poly Pomona is a place where careers begin, mentorship thrives, and future leaders learn to lead. Our hands-on approach to learning, diverse campus community, and culture of care help students succeed from day one.

Degree Programs

The Department of Mathematics and Statistics confers two graduate degrees:

- MS in Mathematics (Pure Mathematics or Mathematics Education Emphasis)
- MS in Statistics and Applied Mathematics (Statistics or Applied Mathematics Option)

Our program is suitable for individuals interested in theoretical mathematics, applications of mathematics or statistics, working in industry, or teaching at the secondary or post-secondary level. Also, our program provides a solid foundation for those seeking to pursue further graduate study in various fields of mathematics.

Full-time Faculty Applied Mathematics

Manuchehr Aminian
Jillian Cannons
Alan C. Krinik
Randall Swift
Jennifer Switkes
Ryan Szypowski
Hubertus von Bremen
Weiqing Xie

Pure Mathematics

J. Arlo Caine
Briana Foster-Greenwood
Berit Givens
Emily Heath
Peter Kagey
Fernando Lopez-Garcia
Ioana Mihaila
John A. Rock
Amber Rosin

Mathematics Education

Stacy Brown
Anne Cawley
Stacy Musgrave
Laurie Riggs
Cristina Runnalls
Greisy Winicki-Landman
Hyunkyoung Yoon

Statistics

He Jiang
Hoon Kim
Adam King
Chris Jungwon Mun
Jimmy Risk



CAL POLY POMONA MATHEMATICS & STATISTICS

GRADUATE PROGRAMS



CalPolyPomona
College of Science

Funding Your Education

Students are eligible for a wide array of scholarships & grants offered through the Department and the University. Financial aid and student loans are also available to fund the MA Program.

Many students also work as Teaching Associates (TAs). Applications are due in April in the Spring immediately preceding the Fall term in which you wish to begin the program. The TA application process is completely separate from that for admission to the graduate program itself.



For More Information

Graduate Coordinator

Dr. John Rock: jarock@cpp.edu

Information for International Applicants:

cpp.edu/admissions/international/graduate

Information for Undocumented Applicants:

cpp.edu/broncodreamers

Division of Graduate Studies:

cpp.edu/gradstudies

Admissions

Applications are due **April 1**. An applicant not meeting the minimum standards of the department may be admitted as a conditional student, if space is available. Note that recommendation letters, the General GRE, and the Subject GRE in Mathematics are NOT required.

MS in Mathematics

To be considered for admission, students must have completed single and multivariable calculus, introductory linear algebra, an introduction to proof-based mathematics (similar to our MAT 3100), introductory real analysis, and introductory modern/abstract algebra. Additional upper-division proof-based mathematics courses with grades of B or higher are strongly recommended.

MS in Statistics and Applied Mathematics

To be considered for admission, students must have completed single and multivariable calculus plus lower-division coursework covering linear algebra, differential equations, and elementary statistics or data science. Upper-division applied mathematics and statistics coursework with grades of B or higher is strongly recommended. Experience with coding is also strongly recommended.

APPLY NOW

► calstate.edu/apply



Degree Requirements

Regardless of the chosen degree program, graduate students must complete 30 credit units as described in the university catalog.

In all cases, students have the choice of either completing a thesis (26 units for coursework and 4 units for thesis preparation) or two comprehensive exams (28 units for coursework and 2 units for comprehensive exams preparation).

MS in Mathematics

Core Coursework (14 units):

- Graduate Seminar
- Real Analysis I
- Abstract Algebra I
- Complex Analysis
- Problem Solving as a Mathematical Endeavor

Electives (12-14 units)

Culminating Experience (2-4 units)

MS in Statistics and Applied Mathematics

Core Coursework (14 units):

- Applied Regression Analysis
- Mathematical Statistics I
- Numerical Analysis I
- Mathematical Modeling I

Subplan/Option Coursework (6-9 units)

Subplan/Option Electives (3-8 units)

Culminating Experience (2-4 units)

Mathematics & Statistics

Cal Poly Pomona
3801 West Temple Avenue
Pomona, CA 91768

Phone: 909-869-3142

Website: cpp.edu/sci/mathematics-statistics



RUSIS@IU – Summer 2025

Javier Rojo – Director



10– Week Summer Program

May 27th - August 1st 2025

The program is designed to prepare undergraduate students for graduate research careers in the Bio/ Statistical Sciences. Students will have the opportunity to learn about statistical and computational sciences and will engage in a research project in one of the following areas: Extreme Value Theory, Multiple Comparisons, Multivariate Survival Analysis, Modelling of the power grid, and other biomedical and Statistical Problems.

Students will receive a \$6,000 stipend for the 10 weeks and up to a \$650 to cover travel expenses. Lodging and meals will be provided for.

Eligibility

- * Students majoring in mathematics, computer science, statistics, or related field who have had the calculus sequence and a course in linear or matrix algebra

Must not hold any undergraduate degree by the end of summer 2025.

Must be a US citizen or permanent resident

Applications deadline is

April 21st, 2025

Application can be requested from

jrojo@iu.edu



Grant support through the National Science Foundation and the National Security Agency



infinite possibilities

CONFERENCE 2025

ABOUT IPC

The Infinite Possibilities Conference (IPC) is a national conference designed to broaden participation in the mathematical sciences. IPC aims to foster a sense of community in mathematics among women from underserved populations and welcomes all mathematicians who feel they may contribute to or benefit from this event.

INVITED SPEAKERS

Ranthy A. Clark, Duke University

Rochelle Gutierrez, University of Illinois Urbana-Champaign

Noelle Sawyer, Southwestern University

Erica Walker, University of Toronto

CONFERENCE SESSIONS

- Workshops for students and professionals
- Research talks & student poster sessions
- Panel discussions & networking opportunities
- Banquet and presentation of the Dr. Etta Z. Falconer Award for Mentoring and Commitment to Diversity

Save the date
**APRIL 11-12
2025**
Celebrating 20 years of fostering connection & belonging in the mathematical & statistical sciences

EVENT DETAILS

Friday April 11 - Saturday April 12

Conference will take place at IMSI on the campus of University of Chicago

Special pre-conference sessions will be offered on Thursday April 10, 2025



**TO REGISTER AND FOR
MORE INFORMATION
SCAN THE QR CODE**

Save the date!

MATH

MATH FOR ALL CONFERENCE

April 5 2025

Virtual and In-person at

New Orleans, LA

Austin, TX

Boulder, CO

Clemson, SC

Salt Lake City, UT

Virtual

More info here!



CUBE 2025 SUMMER PROGRAM

The Collaborative Undergraduate Biostatistics Experience (CUBE) program provides undergraduate students who are underrepresented in STEM programs with training and mentorship in a real-world collaborative health data science research project.



Program Dates:

June 2, 2025 through July 25, 2025

WHAT IS CUBE?

CUBE is an 8-week training program designed to provide undergraduate students who are underrepresented in STEM programs the opportunity to engage in a collaborative data science experience in the health field, along with related professional development activities. The goal is to offer students an experience working with a real-world dataset under the mentorship of experienced data scientists and clinical experts, to help them determine if they want to pursue a career in collaborative data science, and to provide them with professional development skills for the workplace or for graduate school.

WHO WILL HOST AND MENTOR STUDENTS?

Students will be hosted and mentored by faculty and staff at either Virginia Tech's (VT's) Health and Technology campus in Roanoke, Virginia or at the University of Virginia (UVA) located in Charlottesville, Virginia.

STIPEND?

\$4800 (housing and social outings will be covered by the program; student is responsible for food/meals; this stipend is taxable to the student)

MORE INFO

Scan this QR code to get more information about the CUBE summer program



FOLLOW US ON X (TWITTER)
[@VT_BIOSTATS](https://twitter.com/VT_BIOSTATS)

APPLICATIONS

Applications Open:

October 1, 2024 to February 28, 2025

Where can students apply?

<https://biostat.centers.vt.edu/CUBE.html>

WHO SUPPORTS THE CUBE PROGRAM?

CUBE is funded by the National Institutes of Health's (NIH) NIDA/NIAAA institutes under award number R25DA058482, AbbVie, as well as by Virginia Tech's College of Science, the University of Virginia's Division of Biostatistics, and the Integrated Health Research Institute of Virginia (iTHRIV).



OUR TEAM

The mission of the Center for Biostatistics and Health Data Science (CBHDS) is to achieve excellence in Virginia Tech's health- and medically-related research portfolio.

Paid Summer Research, Graduate Fellowships, and Graduate programs!

For Undergraduates

*Paid Summer 2025 Undergraduate Research Placements:
Over 700+ programs – NSF REU, NASA, NIH and other paid summer research opportunities for undergrads*



For Financial Support in Graduate School

Fellowships and graduate programs in a wide variety of STEM disciplines



For tips on Applying and Associated Resources



www.pathwaystoscience.org

Education and career training opportunities in Science, Technology, Engineering & Mathematics (STEM)

SEARCH for a program . . . find your future!

MSRI / Simons Laufer Mathematical Sciences Institute (SLMath) Programs

Register for Spring 2025 Scientific Workshops at SLMath

SLMath workshops are free to attend in Berkeley and online, thanks to the generous support of our funders, including the U.S. National Science Foundation. Register Online:

slmath.org/workshops.

Probability and Statistics of Discrete Structures

- [Connections Workshop](https://slmath.org/workshops/1085) (slmath.org/workshops/1085): January 23-24, 2025
- [Introductory Workshop](https://slmath.org/workshops/1086) (slmath.org/workshops/1086): January 27-31, 2025
- [Detection, Estimation, and Reconstruction in Networks](https://slmath.org/workshops/1098) (slmath.org/workshops/1098): April 21-25, 2025

Extremal Combinatorics

- [Connections Workshop - Extremal Combinatorics](https://slmath.org/workshops/1087) (slmath.org/workshops/1087): February 6-7, 2025
- [Introductory Workshop - Graph Theory: Extremal, Probabilistic and Structural](https://slmath.org/workshops/1088) (slmath.org/workshops/1088): February 10-14, 2025
- [Algebraic and Analytic Methods in Combinatorics](https://slmath.org/workshops/1091) (slmath.org/workshops/1091): March 17-21, 2025

Other Workshops

- [Hot Topics: Interactions between Harmonic Analysis, Homogeneous Dynamics, and Number Theory](https://slmath.org/workshops/1089) (slmath.org/workshops/1089): March 3-7, 2025
- [Critical Issues in Mathematics Education \(CIME\) 2025](https://slmath.org/workshops/1139) (slmath.org/workshops/1139): April 2-4, 2025

Funding Support: Funding Support: Established researchers, postdoctoral fellows, and graduate students are invited to apply for funding. Funding awards are typically made eight weeks before the workshop; requests received after the funding deadlines are considered only if additional funds become available. Groups underrepresented in research-intensive contexts including women, gender-expansive individuals, minorities, and mathematicians not located at research centers are welcomed and encouraged to apply.

Resources for Workshop Attendees: SLMath is pleased to be able to offer a private room for nursing parents. Childcare grants are available for researchers with children under the age of 14 (limited to US Citizens and Permanent Residents, and foreign visitors with a visa status that allows for compensation, such as a J-1). See website for full details: slmath.org/family-services.

MSRI, now SLMath, has been supported from its origins by the U.S. National Science Foundation, joined by the National Security Agency, over 115 Academic Sponsor departments, private foundations, and generous and farsighted individuals.

Wharton M.A. Bridge Program to a Doctorate

Applications for the Master of Arts in Statistics and Data Science, Bridge to a Doctorate Program are now open until February 28, 2025. This two-year research master's (AM) degree program provides advanced coursework, research experience, and mentorship to students who need additional preparation for admission to a doctoral program. I would appreciate your help in advertising this opportunity. Applicants must be citizens or permanent residents of the U.S.

Bridge Fellows receive financial support (full tuition, health benefits, and stipend) and work with Wharton Statistics and Data Science faculty on individualized curricula built around their interests and goals.

Because of the mentorship and individualized curricula for Bridge Fellows, the cohort is small. Applicants must demonstrate a strong interest in research and a desire to earn a PhD. Faculty recommendations are a critical part of the evaluation of applicants.

Full details on the program and application process are available on the website: <https://statistics.wharton.upenn.edu/programs/bridge/>.

Your help in identifying applicants and encouraging them to apply is very much appreciated.

If you have any questions, please contact me at statbridgeprogram@wharton.upenn.edu. I welcome questions from interested students at that email address as well.