### The National Alliance for **Doctoral Studies in the Mathematical Sciences**

Building a New American Community in the Mathematical and Statistical Sciences

#### **OUR HISTORY**

ALLIANCE

Our community was born among math and statistics faculty at the three Iowa Regents Universities: Iowa State University, the University of Iowa, and the University of Northern Iowa. Our commitment was fashioned there as well and these departments have become known nationally as places where all students, particularly those American students who have traditionally been underrepresented in the quantitative sciences, may thrive. As these lowa schools transformed themselves, they built strong ties with mentors at minority serving institutions. As the ties grew stronger and more students came into the Math Alliance, there was a need for more graduate programs to participate. The focus of the Math Alliance moved from solely the three lowa universities to being a national organization that can offer a broad range of opportunities to our Math Alliance Scholars.

We have formed Graduate Program Groups in over 55 Quantitative Sciences Doctoral Departments from around the country that share similar successes and values; we are proud to now be a truly national alliance. now be a truly national alliance.

#### **OUR GOALS**

The National Alliance for Doctoral Studies in the Mathematical Sciences is a community of quantitative sciences faculty and students with the following goals:

- 1. To increase the number of doctoral degrees in the quantitative sciences among communities that have been traditionally underrepresented in those fields.
- 2. To improve placement of students from these communities in doctoral programs in disciplines that recruit undergraduate quantitative science majors.
- 3. To increase the number of PhDs from these communities who enter the professoriate in the quantitative sciences as well as other appropriate professions.
- 4. To increase funded research collaborations among faculty members at the universities with quantitative sciences doctoral programs and faculty members at colleges and universities focused on undergraduate students.
- 5. To foster the growth of a community of quantitative scientists that promote an accessible and inclusive workforce

#### **OUR FUTURE**

Our future as global citizens is tied to the development of a wide range of quantitative skills among Americans. These skills are based in the math sciences but are critical to a wide range of disciplines. Subjects such as engineering, informatics, chemistry, physics, and mathematics of finance rely in a fundamental way on quantitative skills, and there is a place – and a need – for every American student who wishes to develop these skills.

In the future, we hope that our Math Alliance community will be a place where students with quantitative skills and interests can come together with faculty, researchers, and employers in a field which needs these skills so that, through our Math Alliance community and programs, students who once were underrepresented and underserved may achieve their destiny as scholars and leaders.

This is our dream and we welcome you to live this dream with us.



# Us!









# **MATH ALLIANCE**

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#### COMMUNITY

Our goal is to ensure that every underrepresented or underserved American student with the talent and the ambition has the opportunity to earn a doctoral degree in a quantitative science.

Our commitment is to build a national community of students, faculty, and staff who will work together to transform our departments, colleges, and universities into institutions where all students are welcome.

#### **OUR SCHOLARS**

Math Alliance Scholars are underserved, rural or remote quantitative science majors who wish to pursue a doctoral degree in a quantitative field. We serve both predoctoral and doctoral students from all over the country. If you are interested in becoming a Math Alliance Scholar and do not have a Math Alliance Mentor, please get in touch with us.

#### **SCHOLAR BENEFITS**

#### Summer REUs

Predoctoral Math Alliance Scholars are eligible for the Alliance Affiliated Summer Research Experiences (REUs). REUs are an invaluable experience and great preparation for advanced study in mathematics.

#### Field of Dreams Conference

Each Fall Alliance Scholars, together with their Alliance Mentors, are invited to the Field of Dreams Conference. The Field of Dreams Conference introduces potential graduate students to graduate programs in the quantitative sciences at GPGs as well as professional opportunities in these fields. Scholars spend time with faculty mentors from the Math Alliance and get advice on graduate school applications and attend seminars on graduate school preparation and expectations as well as career seminars.

#### Facilitated Graduate Application Process (F-GAP)

Second semester juniors who will be applying to graduate programs in the quantitative fields are welcome to take part in the Facilitated Graduate Application Process (F-GAP). These scholars will be paired with a Doctoral Mentor who will help them navigate the graduate application process.

#### MENTORS

Our mentors come from a variety of schools all over the country. What they all have in common is a commitment to our Math Alliance Scholars.

Math Alliance Predoctoral Mentors play four key roles:

- they nominate Math Alliance Predoctoral Scholars
- they serve on the mentoring team for these Scholars
- they participate on Math Alliance committees in areas such as governance, curriculum, conference agenda, and external funding
- they are active members of the Math Alliance Community and provide leadership and guidance for our community



## Become a Mentor!

#### **GRADUATE PROGRAM GROUPS**

A Math Alliance Graduate Program Group (GPG) is a group of Alliance Graduate Faculty Mentors in a quantitative sciences department of sufficient size and seniority that they may successfully mentor a significant number of graduate students from rural, remote, or underserved communities. GPGs share the goal of ensuring that Math Alliance Scholars who wish to pursue an advanced degree in these departments will thrive, and GPGs have committed themselves to a set of best practices. GPGs are in all areas of the broad quantitative sciences.

The Math Alliance is eager to increase the number of Graduate Faculty Mentors and works to provide opportunities for quantitative sciences graduate faculty nationally to become familiar with Math Alliance goals and practices.



#### mathalliance.org



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