

## Our Story:

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, over the last fifteen years, our departments have become known nationally as places where all students, particularly those American students who have traditionally been underrepresented in the math sciences, may thrive. As we transformed ourselves, we built strong ties with mentors at minority serving institutions, and we got to know their students. Through our outreach programs we have begun to bring these mentors and students together with mentors and students from undergraduate and Master's granting institutions in our state and region.

We have formed Graduate Program Groups in over 30 Mathematical Sciences Doctoral Departments from around the country that share similar successes and values; we are proud to now be a truly national alliance.

## 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 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 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.



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

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



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

Department of Mathematics  
Purdue University  
150 N. University Street  
West Lafayette, IN 47907

765-494-1423  
mathalliance@purdue.edu  
<http://mathalliance.org/>

# The National Alliance for Doctoral Studies in the Mathematical Sciences

## Building a New American Community in the Mathematical and Statistical Sciences



# Math Alliance Community

Our goal is simple: we want to be sure that every underrepresented or underserved American student with the talent and the ambition has the opportunity to earn a doctoral degree in a mathematical 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

Alliance Scholars are underserved or underrepresented math science majors who wish to pursue a doctoral degree in a math science or other quantitative field. We serve both predoctoral and doctoral students from all over the country. If you are interested in becoming an Alliance Scholar and do not have a mentor, please contact us.



## Scholar Benefits

### Summer REUs –

Predocctoral 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.



### Alliance 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 mathematical sciences at Alliance schools as well as professional opportunities in these fields. Scholars spend time with faculty mentors from the Alliance schools, get advice on graduate school applications, and attend seminars on graduate school preparation and expectations as well as career seminars.

### Facilitated Graduate Application Process (FGAP) –

Graduating seniors who will be applying to graduate programs in the mathematical and statistical fields are welcome to take part in the Facilitated Graduate Application Process (FGAP). These scholars will be paired with a Doctoral Mentor who will aid in the review of their application materials.

### Alliance Mentoring Team –

Each Alliance Predocctoral Scholar will be paired with a Predocctoral Mentor, a Doctoral Mentor and where possible, an Alliance Doctoral Scholar. Together they will form the Scholars mentoring team.

## Our Mentors

Our mentors come from a variety of schools all over the country. What they all have in common is a commitment to our Alliance Scholars. Alliance Predocctoral Mentors play four key roles:



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

## Graduate Program Groups



An Alliance Graduate Program Group (GPG) is a group of Alliance Graduate Faculty Mentors in a math sciences department of sufficient size and seniority that they may

successfully mentor a significant number of graduate students from underrepresented groups.

These GPGs share the goal of ensuring that underrepresented students who wish to pursue an advanced degree in these departments will thrive, and they have committed themselves to a set of best practices. Alliance GPG's are in all areas of the mathematical sciences: pure math, applied math, statistics, biostatistics, and mathematical biology. The Alliance Statistics Initiative is working towards adding additional GPG's in statistics and biostatistics.

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