

NSF Funding Opportunities in Statistics and Probability

Funding Opportunities for Statisticians ASA Committee on Funded Research Joint Statistical Meetings, Baltimore

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10 Big Ideas for Future NSF Investment Opportunities for Statisticians to play a role

- Understanding the Rules of Life: Predicting Phenotype
- Harnessing Data for 21st Century Science and Engineering
- Work at the Human-Technology Frontier: Shaping the Future
- INCLUDES (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science)

NSF-Simons Research Centers for Mathematics of Complex Biological Systems (MathBioSys)

- Establish centers to facilitate collaborations between mathematicians, statisticians, and biologists
- Develop novel mathematical, rigorous computational, and statistical approaches to advance fundamental understanding of how and why emergent properties arise in molecular, cellular and organismal systems
- Supports basic research in mathematical and biological sciences. Human health-related research or clinically motivated projects are NOT appropriate
- LETTER OF INTENT DUE: August 10, 2017 (Full proposals due September 29)



Programs of special interest to students and junior faculty

- Faculty Early Career Development Program (CAREER)
- Mathematical Sciences Postdoctoral Research Fellowships (MSPRF)
- Special Opportunities:
 - Conferences and Workshops
 - Mathematical Sciences Institutes



Interdisciplinary Programs

- Joint Initiative in Math Biology (DMS/NIGMS)
- Critical Techniques and Technologies for Advancing Foundations and Applications of Big Data Science & Engineering (BIGDATA)
- Computational and Data–Enabled Science and Engineering in Math. and Stat. Sciences (CDS&E–MSS)
- Collaborative Research in Computational Neuroscience (CRCNS)
- Methodology, Measurement, and Statistics (SBE/MMS)



Computational and Data-Enabled Science and Engineering in Mathematical and Statistical Sciences (CDS&E-MSS)

- Deadline: November 25 December 11, 2017
- Confront the host of mathematical and statistical challenges presented to the scientific and engineering communities by the ever-expanding role of computational modeling and simulation on the one hand, and the explosion in production of digital and observational data on the other.
- The goal of the program is to promote the creation and development of the next generation of mathematical and statistical theories and tools that will be essential for addressing such issues.



DMS/NIGMS

- Joint Initiative: National Institute of General Medical Sciences & Division of Mathematical Sciences
- Promotes research at the interface of the biological and mathematical sciences
- Sophisticated math/stat techniques, involving significant quantitative challenges to answer biological questions
- Direct relationship between a biological application and the mathematical/statistical work
- Research teams are encouraged
- Deadline: September 1 September 18



Algorithms for Threat Detection (ATD)

- Support the development of the next generation of mathematical and statistical algorithms for analysis of large spatiotemporal datasets with application to quantitative models of human dynamics.
- Partnership between the Division of Mathematical Sciences (DMS) and the National Geospatial Intelligence Agency (NGA).
- Research teams are encouraged
- Deadline: February 20, 2018



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Funding Opportunities and Deadlines

> DMS Web Page

<u>http://www.nsf.gov/div/index.jsp?org=DMS</u>

> DMS automated e-mail server: To subscribe, send an email message to

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