



NSF Funding Opportunities: Statistics & Data Science

August 7, 2022
JSM2022

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Program Officers Division of Mathematical
Sciences National Science Foundation

NSF in a Nutshell

- ▶ Independent agency to support basic research & education
- ▶ Grant mechanism in two forms:
 - **Unsolicited, curiosity driven** (the majority of the \$)
 - **Solicited, more focused**
- ▶ All fields of Science/engineering
- ▶ Discipline-based structure, some cross-disciplinary



DIRECTORATE

MPS

MATHEMATICAL
AND PHYSICAL
SCIENCES

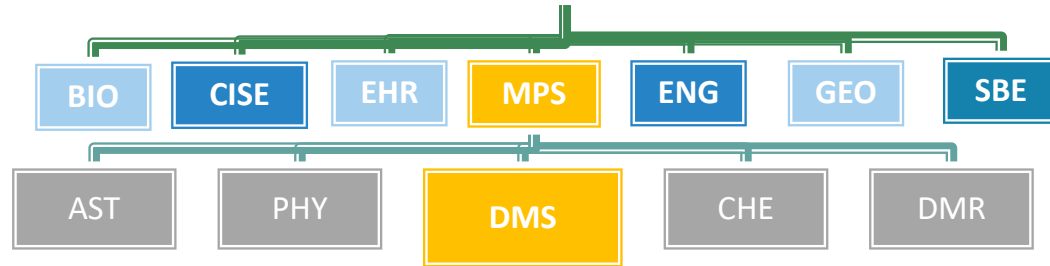
DIVISION

DMS

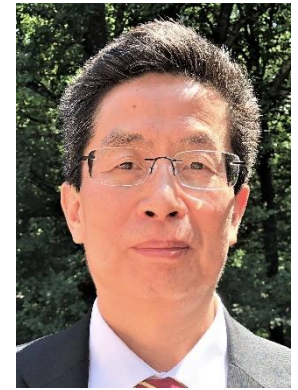
DIVISION OF
MATHEMATICAL
SCIENCES

PROGRAM

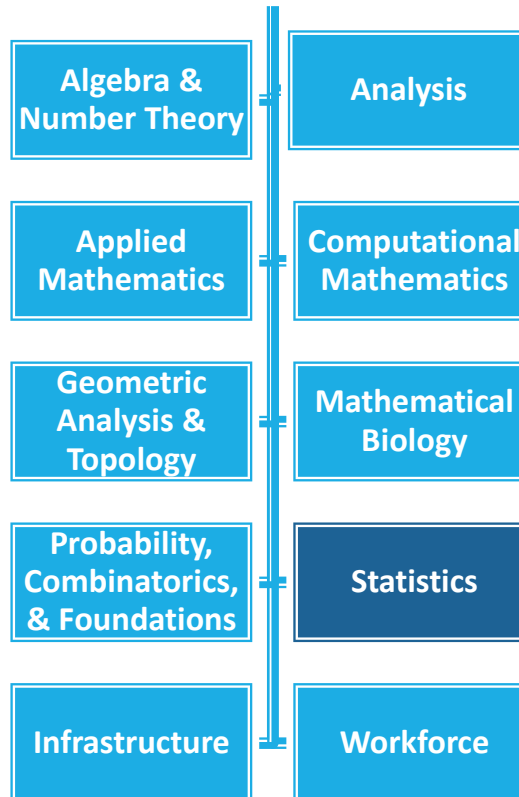
NSF ORGANIZATIONAL
CHART



David
Manderscheid
Division Director



Junping
Wang
Deputy
Division Director



Statistics Program

- ▶ Support research in statistical theory & methods, including research for applications to any domain of science and engineering
- ▶ Regular Statistics Program: December 1–15, 2022
- ▶ Faculty Early Career Development Program (CAREER, July)
- ▶ **Conferences and Workshops in the Mathematical Sciences**: anytime with sufficient lead time (>6 months)



Statistics Program Officers



Nandini
Kannan
(On Leave)



Edsel Pena
(rotator)



Huixia
Judy Wang
(rotator)

DMS Special Research Programs

- **DMS/NIGMS** (Interface of the Biological and Mathematical Sciences)
 - Solicitation: [nsf22600 Joint DMS/NIGMS Initiative to Support Research at the Interface of the Biological and Mathematical Sciences \(DMS/NIGMS\) | NSF – National Science Foundation](#)
 - **September 1–19, 2022**
- **CDS&E–MSS** (computational and massive-data challenges presented to scientific and engineering communities)
NEWS: No deadline. Proposals are accepted anytime
- **ATD** (Algorithms for Threat Detection) joint with NGA of DOD
<https://www.nsf.gov/pubs/2020/nsf20531/nsf20531.htm>
3rd Wednesday in February
- **AMPS (Algorithms for Modern Power Systems)** joint with DOE
February 13, 2023
- ▶ **FRGMS** (Focused Research Groups in the Mathematical Sciences)
 - <https://www.nsf.gov/pubs/2016/nsf16577/nsf16577.htm>
 - **2nd Wednesday in September**



Other Special Research Programs

- [CRCNS](#) (Collaborative Research in Computational Neuroscience), NSF 20-609, **Nov 22, 2022**
- [SCH](#) (Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science;) joint with NIH, NSF 21-530, **Nov 10, 2022**
- [SaTC \(Secure & Trustworthy Cyberspace\)](#), NSF 22-517, **Anytime**
- [DMREF](#) (Designing Materials to Revolutionize and Engineer our Future)
- [DCL NSF 21-124](#): Critical Aspects of Sustainability (CAS): Innovative Solutions to Climate Change
- [IMR](#) (Internet Measurement Research: Methodologies, Tools, and Infrastructure), NSF-22-519. For information, see the website: <https://www.nsf.gov/pubs/2022/nsf22519/nsf22519.htm>



Other Special Research Programs

- **LEAPS–MPS** (Launching Early–Career Academic Pathways in the Mathematical and Physical Sciences) NSF 22–604: **Jan 25, 2022**
<https://www.nsf.gov/pubs/2022/nsf22604/nsf22604.htm>

NEWS: PI eligibility is no longer restricted by US immigration status.

- **EEID** (Ecology and Evolution of Infectious Diseases):
3rd Wednesday in November
<https://beta.nsf.gov/funding/opportunities/ecology-and-evolution-infectious-diseases-eeid>

- **More at:**

<https://www.nsf.gov/funding/programs.jsp?org=DMS>



Training & Career Development

- ▶ **GRFP** (Graduate Research Fellowship Program)
 - https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22614; **October 21, 2022**
- ▶ **MSPRF** (Mathematical Sciences Postdoctoral Research Fellowships)
 - https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22619
 - **Third Wednesday in October**
- ▶ **MSGI** (NSF Mathematical Sciences Graduate Internship)
 - For math science doctoral students to participate in internships at federal national laboratories, industry and other approved facilities
 - <https://orise.orau.gov/nsf-msgi>; **January 31**
- ▶ **Others:** RTG (Research Training Groups in the Mathematical Sciences); REU (Research Experiences for Undergraduates) Sites



Community Resources

- ▶ **Mathematical Sciences Institutes** (www.mathinstitutes.org)
 - [IMSI \(Institute for Mathematical and Statistical Innovation\)](#)
- ▶ **NSF TRIPODS Institutes:** <https://nsf-tripods.org/>
 - [Foundations of Data Science Institute](#)
 - [Institute for Foundations of Data Science](#)
- ▶ **NSF-SF MoDL centers**
 - [THEORINET](#)
 - [The Collaboration on the Theoretical Foundations of Deep Learning](#)
- ▶ **AI Institutes**, e.g.
 - [Institutes for Foundations of ML \(UT Austin\)](#)
 - [AI Institutes in Dynamic Systems \(U Washington\)](#)
- ▶ **HDR Institutes**



Final Remarks

- Check the published abstracts on the NSF website: <http://www.nsf.gov/awardsearch>
- Volunteer as a reviewer! Email the PD or visit <https://www.nsf.gov/additional-resources.jsp?org=DMS>
- Subscribe to DMS listserv: <https://www.nsf.gov/mps/dms/about.jsp>
- Talk to Program Officers
 - JSM: DMS Meet & Greet; Speed Coaching
 - [DMS virtual office hours](https://www.nsf.gov/events/index.jsp?org=DMS) (VOH):
<https://www.nsf.gov/events/index.jsp?org=DMS>



QUESTIONS?

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