

Division of Mathematical Sciences (DMS)

Virtual Office Hour: April 18, 2023

Welcome to the DMS Virtual Office Hour. We will begin soon.

Please submit questions via the Q&A box available to you on Zoom.

Moderators (VOH team): Jennifer Connell, J. Matthew Douglass, **Stacey Levine**,
LaWanda Myers, Adriana Salerno, Chris Stark, Jeremy Tyson, David Waldner



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Housekeeping

- Submit your questions via the Q&A box
 - Q&A session is held at the end of the office hour.
 - Questions can be submitted anonymously.
 - We will focus on questions of interest to a wide audience.
 - For specific questions about a particular project, contact a cognizant Program Officer.
- For slides from previous office hours see <https://www.nsf.gov/mps/dms/presentations.jsp>
- Next DMS Virtual Office Hour: Monday, May 15th, 2:00-3:00 PM Eastern Time
 - Topics include:
 - Faculty Early Career Development Program (CAREER)
 - Broader impacts.
 - Questions can be submitted in advance on the registration form.



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Today's Agenda

- Opportunities and upcoming deadlines
- Research Training Groups in Mathematics (RTG): **Constanze Liaw**
- Partnerships for Research Innovation in the Mathematical Sciences (PRIMES): **Stefaan DeWinter**
- Targeted supplements: **Adriana Salerno**

Subscribe to DMSNEWS:

Send email to listserv@listserv.nsf.gov

In the body of the message, put the following command:

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subscribe dmsnews [your name]
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Suggest a topic for future VOH:

Send email to dms-voh@nsf.gov



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Opportunities and upcoming deadlines

- Funding opportunities <https://www.nsf.gov/funding/programs.jsp?org=DMS>
- Upcoming deadlines

https://new.nsf.gov/funding/opportunities?sort_bef_combine=nsf_funding_upcoming_due_dates_DES_C&f%5B0%5D=division%3A43

- ADVANCE: Organizational Change for Gender Equity in STEM Academic Professions
 - Preliminary proposal due April 27, 2023
- NSF-CBMS Regional Research Conferences in the Mathematical Sciences
 - Full proposal due April 28, 2023
- Partnerships for Innovation
 - Full proposal due May 2, 2023
- Molecular Foundations for Biotechnology (MFB)
 - Full proposal due May 11, 2023
- Partnerships for Research Innovation in the Mathematical Sciences (PRIMES)
 - Full proposal target date May 26, 2023
- Research Training Groups in the Mathematical Sciences (RTG)
 - Full proposal due June 6, 2023
- Faculty Early Career Development Program (CAREER)
 - Full proposal due July 26, 2023



Research Training Groups in the Mathematical Sciences (RTG)

- **Website (contains link to current solicitation NSF 20-608):**
<https://new.nsf.gov/funding/opportunities/research-training-groups-mathematical-sciences-rtg>
- **Solicitation updates include:**
 - Graduate students: professional training including teaching or industry or lab.
 - Post-doc Ph.D. year requirement is relaxed.
 - Clarifies that all PAPPG requirements hold.
- **Program Officers for DMS:**
Eun Heui Kim (eukim@nsf.gov)
Constanze Liaw (cliaw@nsf.gov)
Andrew D. Pollington (adpollin@nsf.gov)
Magdalena Toda (mtoda@nsf.gov)
Yong Zeng (yzeng@nsf.gov)
- **Submission Deadline (lookout for potential changes):** June 6, 2023
(NSF 20-608)
First Tuesday in June, annually thereafter



NSF-RTG: Overview

Program goal: Increase the number of well-prepared U.S. citizens, nationals, and permanent residents who pursue careers in the mathematical sciences, be they in academia, government, or industry.

Program highlights:

- Three to five-year awards, up to \$500K/year.
- Limited faculty salary. No citizenship/permanent resident requirement for PIs.
- Travel, conference, consultant support.
- **Vertical integration:** undergraduate research, graduate traineeships, 3-yr post-doc positions. Funded trainees have citizenship/permanent resident requirements.
- Integration of research, education, professional development.
- Recruitment and retention, assessment.
- Post-RTG sustainability plan.
- If you have trouble uploading the Postdoctoral Mentoring Plan in the appropriate spot, please include the plan as a supplemental document.



NSF-RTG: FAQ

1. Why are there both 3-year and 5-year RTG grants? Is one more common?
2. Should all PIs be mathematicians? Can early career faculty serve as PI?
3. Are RTG proposals reviewed by a panel? Who are the typical panelists?
4. What do reviewers look for in terms of “vertical integration”?
5. What are the expectations for the proposal, e.g., regarding assessment?
6. Can an institution with a master’s (but no Ph.D.) program apply?
7. Are collaborative RTG proposals encouraged? How about collaborations between institutions with different focus (e.g., top research, PUI, HBCU, minority serving)?
8. Should a proposal include letters of collaboration if external people/organizations will be involved?



PRIMES: Partnerships for Research Innovation in the Mathematical Sciences

- **Website:**
 - <https://new.nsf.gov/funding/opportunities/partnerships-research-innovation-mathematical>
- **Program Officers for DMS:**
Stefaan De Winter (primes@nsf.gov)
Joanna Kania-Bartoszyńska (primes@nsf.gov)
Adriana Salerno (primes@nsf.gov)
- **Submission Target Date:** May 26, 2023 ([NSF 23-560](#))
- **Goal:** Enable *partnerships* between MSI and DMS-supported research institutes with the aim to increase diversity through growing research capacity at the MSI and increase participation from MSI faculty in already existing programs at Math Institutes.



PRIMES: Partnerships for Research Innovation in the Mathematical Sciences

- **Awards:** year-long research leaves, during which time participants visit one of the partnering DMS-supported research institutes + 2 years of summer support + travel; can include support for a student/postdoc.
- **Eligibility: Several Criteria (see solicitation):** PI must be faculty at a Minority Serving Institution (MSI) and MSI *cannot* be a Doctoral University with "Very High Research Activity" (R1 institutions) .
- **Partners for FY23:** AIM, IAS, ICERM, IMSI, IPAM, SL-Math (MSRI)
- **Director, Associate Director, or equivalent at Partner Institute must be a *co-PI*.** (Partner institutes determine "or equivalent" roles).



PRIMES: Partnerships for Research Innovation in the Mathematical Sciences continued...

- **Forming partnerships:** In general, MSI PIs should
 - contact potential Partner institutes as soon as possible,
 - be ready to discuss their views and ideas for a potential partnership and
 - be open to advice and feedback from Partners.

NSF is leaving the specific process of selecting with whom to partner to the Partner Institutes to decide.

- **Successful proposals** need to
 - include a vision for the partnership that promotes inclusiveness and research excellence;
 - address how the award will advance research capacity and output at the MSI;
 - address how the award will contribute to increasing workforce diversity;
 - identify and address anticipated challenges and expected outcomes.



PRIMES: example

Year 0

- Dr. Who, a faculty member at Hudson University, identifies a semester-long program at Very Cool Math Institute (VCMI) that aligns with their research interests.
- Dr. Who contacts Associate Director at VCMI outlining the program they want to participate in, why it would be beneficial, and AD agrees to be co-PI on this proposal.
- Dr. Who prepares proposal and submits by target date (May 26th for FY23).

NSF Review Process (reviews, panel, decisions) – Dr. Who is awarded!

Year 1

- Dr. Who is on full leave from Hudson University.
- Fall semester: Dr. Who visits VCMI for the Thematic Program.
- Rest of the year: Dr. Who is still on leave (wherever they want to be), working on research, writing up any work, continuing collaborations.

Summer support and travel money to continue Dr. Who's research.

Year 2

Dr. Who resumes normal duties at Hudson University

Summer support and travel money to continue Dr. Who's research.



Supplements to Existing DMS Awards with specific opportunities for enhancing education and broadening participation



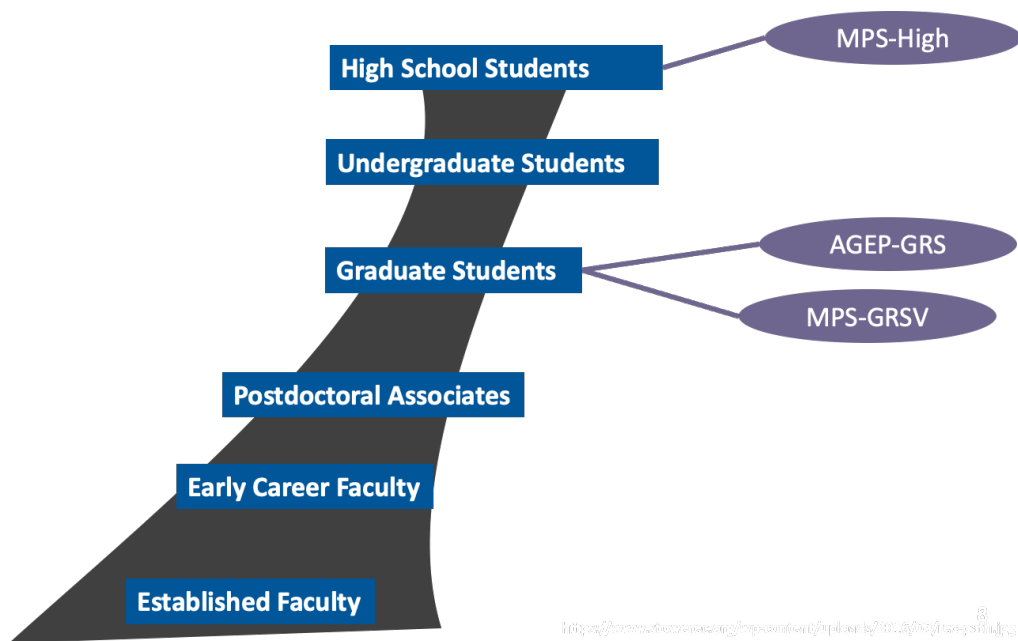
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Supplements related to education and broadening participation

- Supplements can be made under an existing NSF award or within a proposal for a new or renewal NSF award.
- For existing awards, the PI should consult with the Program Director of their particular NSF award.
- No special deadline associated.
- Not stand-alone awards.
- The NSF policy on supplemental support is contained in the PAPPG <https://new.nsf.gov/policies/pappg/23-1/ch-6-nsf-awards#6E5>



Supplements for Student Support on MPS Awards



High School Student Research Assistantships (MPS-HIGH): Support for up to **two high school students** (DCL: [NSF 22-041](https://www.nsf.gov/pubs/2022/nsf22041/nsf22041.jsp)) to foster interest in pursuing studies in MPS and to broaden participation with an emphasis on those traditionally underrepresented and underserved.

AGEP: Alliances for Graduate Education and the Professoriate -Support for **one additional Ph.D. student per award** with *an emphasis* on increasing the involvement of members of underrepresented groups -- a key goal of the AGEP Program. The PI must be affiliated with an institution participating in an active AGEP project or a legacy **AGEP institution** (DCL: [NSF 20-083](https://www.nsf.gov/pubs/2020/nsf20083/nsf20083.jsp)).

Veterans (MPS-GRSV): Support for one additional Ph.D. student per award for students that are **United States Veterans** (DCL: [NSF 20-097](https://www.nsf.gov/pubs/2020/nsf20097/nsf20097.jsp)).

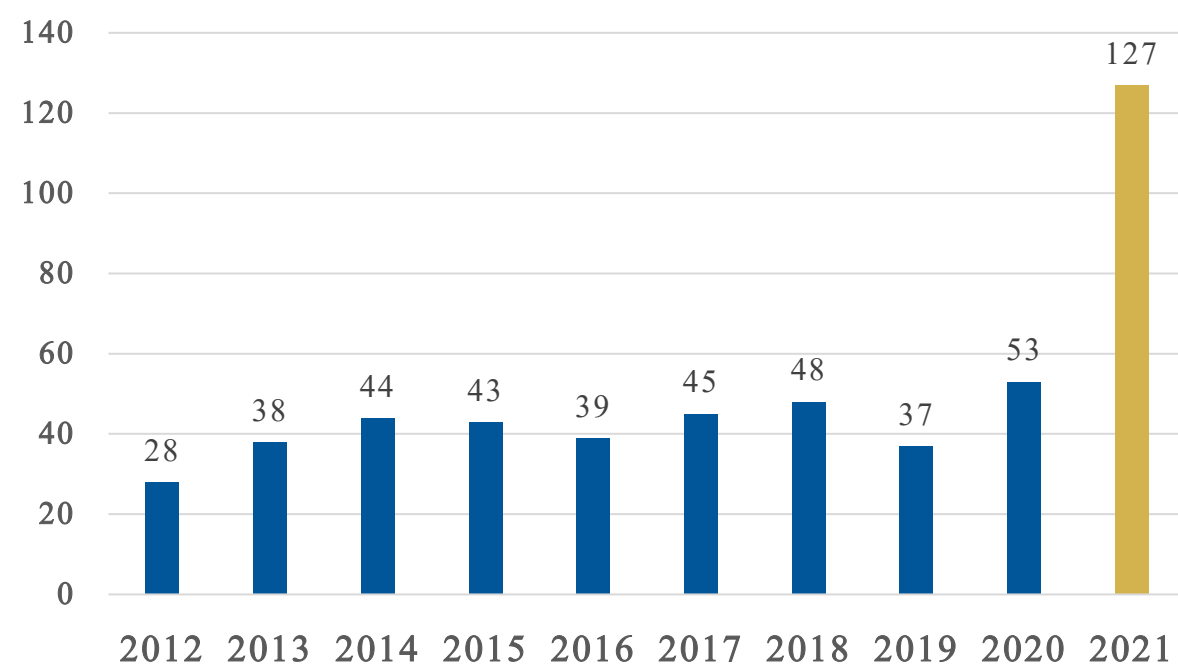
AGEP: <https://www.nsf.gov/pubs/2020/nsf20083/nsf20083.jsp>

MPS GRSV: <https://www.nsf.gov/pubs/2020/nsf20097/nsf20097.jsp>

MPS High: <https://www.nsf.gov/pubs/2022/nsf22041/nsf22041.jsp>

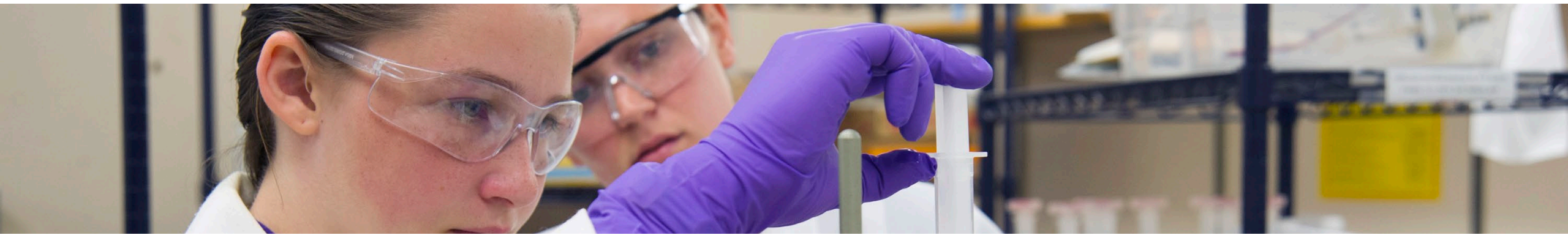


MPS AGEP Awards per fiscal year



MPS AGEP Graduate Research Fellows

- Collaboration between the NSF Alliances for Graduate Education and the Professoriate (AGEP) program in the Directorate for STEM Education (EDU) and the Directorate of Mathematics and Physical Sciences (MPS).
- **PIs requesting a supplement must be either at or collaborating with faculty at an institution that has received an EDU AGEP award.**
- Supplement for a **current MPS research** awardee for one (additional) Ph.D.
 - **Improve diversity and retention** at the doctoral level within the mathematical and physical sciences.
- MPS supported **206** students through AGEP-GRS supplements from FY2012 -2020. In 2021, we supported **127**.



DCL: MPS-High

High School Student Research Assistantships Funding to Broaden Participation in the Mathematical and Physical Sciences ([NSF 22-041](#))

PURPOSE

Broaden participation of high school students with emphasis on those in groups that have been traditionally underrepresented and under-served in STEM fields.

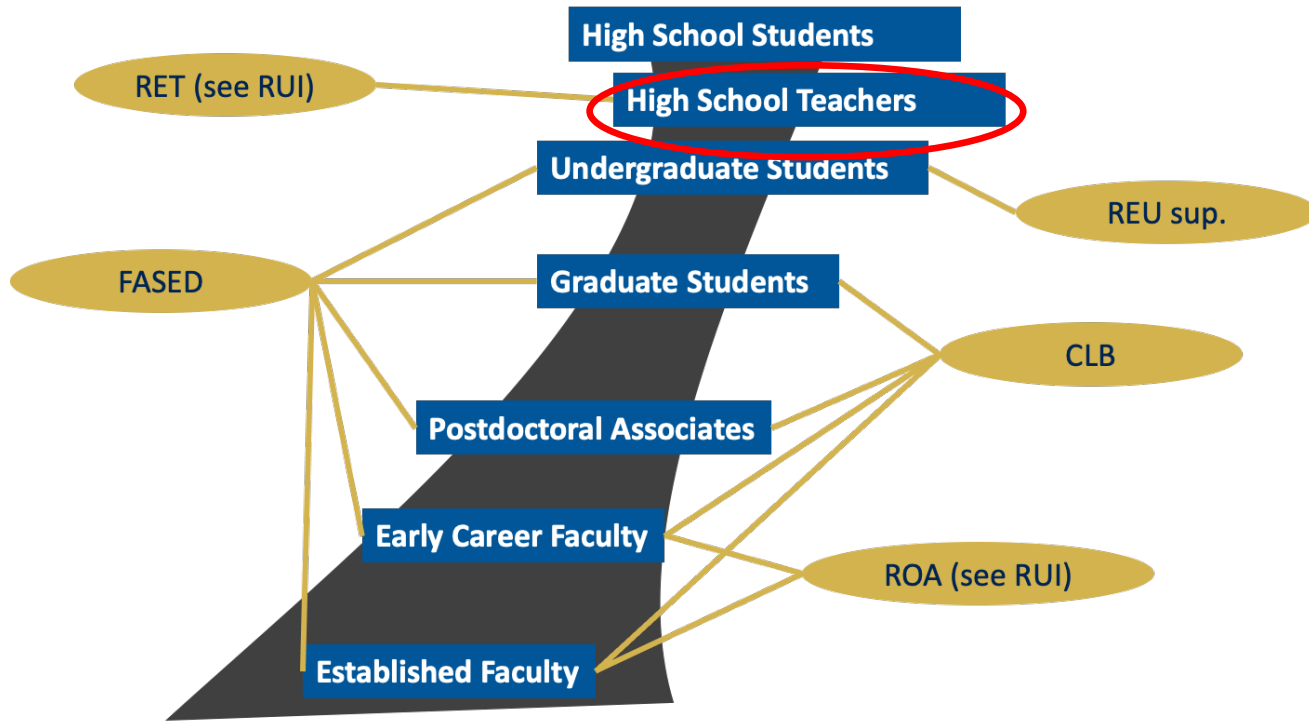
INTENT

Invite requests which foster interest in the pursuit of studies in the Mathematical and Physical Sciences.

GOAL

Provide supplemental funding to expand number of research and mentoring opportunities for high school students, especially those underrepresented

NSF Wide Supplements for Support on Existing Awards



RET: Research Experience for Teachers Part of REU solicitation (NSF 19-582)

FASSED (PAPPG II.E.7): Facilitation Awards for Scientists and Engineers with Disabilities. Supports **persons with physical disabilities** by providing special equipment and assistance under NSF awards.

REU Supplement (NSF 19-582): if the need for the **undergraduate student support** was not foreseen at the time of the original proposal submission.

NSF's Career-Life Balance Initiative: (PAPPG I.E.8) (CLB) policies and practices to increase the placement, advancement, and retention of **people with family obligations** in STEM disciplines.

ROA: Research Opportunity Award (NSF 14-579) -- to enable **faculty members at RUI eligible PUIs** to pursue research as visiting scientists with NSF-supported investigators at other institutions. ROA activities are usually summer experiences but sometimes provide partial support of sabbaticals.



How to Apply for Supplements

- **Contact the managing program director for the original award to discuss.**
- Log in to Research.gov.
- Under "Awards and Reporting", select "Supplemental Funding Request".
- Select "Prepare New Supplement" and choose the award to be supplemented.
- For "Summary of Proposed Work," state the type of supplement requested.
- For "Justification for Supplement" describe in 3 pages or less your reason for the request and what activities the supplement would support. *Follow any document guidance carefully.
- Requires budget and budget justification. Supplements are usually no more than 20% of the original award.



Virtual Office Hour: Questions from registration

1. Where do I get started with NSF as a new PhD?
2. I submitted my proposal last fall. When can I expect to hear whether it was awarded or declined?
3. Regarding PRIMES,
 1. Are NASNTTs included in the MSI's for a PRIMES proposal
 2. Can the PI use their one-year replacement in Year 2?
4. How do I determine whether to submit my supplement request through FastLane or Research.gov?



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Virtual Office Hour: Thank you

- For slides from previous office hours, see <https://www.nsf.gov/mps/dms/presentations.jsp>
- Submit questions/suggestions about DMS Virtual Office Hours to DMS-VOH@nsf.gov
- For specific questions about a project, contact a Program Officer.
- For future Virtual Office Hour topics, see <https://www.nsf.gov/events/index.jsp?org=DMS>
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