

NSF CAREER Award

MT RESEARCH
AND SPONSORED PROGRAMS

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Expert Panel

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Physics and Astronomy

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Synopsis

CAREER: The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization. Activities pursued by early-career faculty should build a firm foundation for a lifetime of leadership in integrating education and research. **The intent of the program is to provide stable support at a sufficient level and duration to enable awardees to develop careers not only as outstanding researchers but also as educators demonstrating commitment to teaching, learning, and dissemination of knowledge.**

Eligibility

Proposers must meet all of the following eligibility requirements as of the annual deadline:

- **Hold a doctoral degree in a field supported by NSF;**
- **Be engaged in research in an area of science, engineering, or education supported by NSF;**
- **Hold at least a 50% tenure-track (or tenure-track-equivalent) position as an assistant professor (or equivalent title);**
- **Be untenured; and**
- **Have not previously received a CAREER award. (Prior or concurrent Federal support for other types of awards for non-duplicative research does not preclude eligibility.)**

Upcoming Due Dates

Full Proposal

2022

July 25 - Deadline Date

Fourth Monday in July, Annually Thereafter

Who May Serve as PI:

A Principal Investigator (PI) may submit only one CAREER proposal per annual competition. In addition, a Principal Investigator may not participate in more than three CAREER competitions. Proposals that are not reviewed (i.e., are withdrawn before review or are returned without review) do not count toward the three-competition limit.

What NSF expects from the proposal

The Project Description section should contain a well-argued and specific proposal for activities that will, over a 5-year period, build a firm foundation for a lifetime of contributions to research and education in the context of the Principal Investigator's organization. The proposed project should aim to advance the employee's career goals and job responsibilities as well as the mission of the department or organization.



Seth Jones, Ph.D.

Womack Educational Leadership

NSF CAREER 2020



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What is My Project?



CAREER: Supporting Model Based Statistical Inference as an Integrated Effort Between Mathematics and Science

- 5 year project (2020-2025)
- Discovery Research for K-12 Education (DRK-12)
- Driving Question: How can we better coordinate instruction about data across math and science classes in middle schools?
- Context: 6th and 7th grade math and science teachers in one partner school.

What Was the Road to This Project?

	2016 - 2018	December 2018	Spring 2019	Summer 2019	January 2020
Internal Funding	█				
Pilot Work	█				
Partnership Building	█				
Research Career & Funding Programs		█			
Pitch Idea to Colleagues		█			
Talk to NSF P.O.s		█			
Collect Examples			█		
Write			█		
Submit				█	
Funded					█

What Might You Think About?

- Do I want to do this?
- What is feasible at MTSU?
- Timing: Submitting after building some momentum while also leaving time for revision and resubmission.
- How can my college and department support me? (Dept chair letter!!)
- What funding program do I want to submit to?
- How can I start working on this right now?



Hanna Terletska, Ph.D.

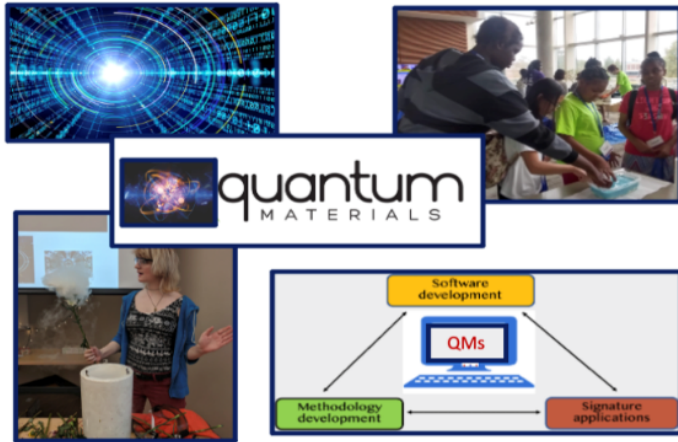
Physics and Astronomy

NSF CAREER 2020



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What is My Project?



Terletska's NSF CAREER (NSF-DMR program):

Beyond Ideal Quantum Materials: Understanding the Critical Role of Disorder and Electron-Electron Interactions

- 5 year project (2020-2025)

Research focus: Advancing understanding of Quantum Materials physics - materials of 21st century;

• **Driving Research Questions:** improving modeling and simulations of non-ideal quantum systems;

• **Broader impact:** Quantum Education & Increasing diversity and inclusion in physics and STEM.

The way I approached it

Understanding what is NSF CAREER grant about?

- Read & read again RFP
- It is about You and your CAREER (both research & educational)
- Attend NSF new PI meeting/workshop
- Become a reviewer

Developing CAREER Grant Story

- That great and transformative research idea; Impact on the field;
- Career vision (now and then)
- Why I am the unique person to do it:
 - preliminary data;
 - it is doable @MTSU
 - show that you are not your postdoc advisor
- Ed Component: you are serious about it.

Developing Grant Writing Skills

- Proposal style is different from the research paper
- Internal grant (IGO) & External grants
- NSF regular grant (1 failed, 1 successful)
- Selling your idea: read examples (40% -great idea; 60%-presentation)

Grant Writing

- Time consuming: 2-5 days/page; ~2-3 month for writing
- 1 month for internal reviews (have others to read it)
- Other grant components: budget; data management; ..
- Work with ORSP and navigate the Fastlane in advance

Q & A

Do you have any questions?

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