**Effective 10/04/2021**

**NSF CURRENT AND PENDING SUPPORT**

**OMB-3145-0058**

PI/co-PI/Senior Personnel: Hickernell, Fred J.

**PROJECT/PROPOSAL PENDING SUPPORT**

1. Project/Proposal Title: Collaborative Research: Cost-Efficient Simulation via Quasi Monte Carlo for Scalable Scientific and Big Data Computing (This Proposal)

Proposal/Award Number (if available):

Source of Support: NSF - National Science Foundation Primary Place of Performance: Illinois Institute of Technology Project/Proposal Support Start Date (if available): 07/2023 Project/Proposal Support End Date (if available): 06/2026 Total Award Amount (including Indirect Costs): $487,349

Person-Month(s) (or Partial Person-Months) Per Year Committed to the Project:

|  |  |
| --- | --- |
| **Year** | **Person-months per year committed** |
| 2024 | 1 |
| 2025 | 1 |
| 2026 | 1 |

Overall Objectives: 1) To address frontier theoretical and implementation issues in quasi-Monte Carlo methods. 2) To educate the community in best practices in speedier and more accurate Monte Carlo simulation

Statement of Potential Overlap: The work done in this project will inform the projects in the proposed SURE program. Students supported by this award may work alongside SURE students.

1. Project/Proposal Title: REU Site: Summer Undergraduate Research Experience (SURE) at Illinois Tech

Proposal/Award Number (if available):

Source of Support: NSF - National Science Foundation Primary Place of Performance: Illinois Institute of Technology Project/Proposal Support Start Date (if available): 05/2023 Project/Proposal Support End Date (if available): 04/2026 Total Award Amount (including Indirect Costs): $404,893

Person-Month(s) (or Partial Person-Months) Per Year Committed to the Project:

|  |  |
| --- | --- |
| **Year** | **Person-months per year committed** |
| 2023 | 0.01 |
| 2024 | 0.01 |
| 2025 | 0.01 |

Overall Objectives: We believe the proposed SURE program will fill a gap in training the research capabilities and enhance the positive impact of Illinois Tech on its neighboring community. We will attract more underrepresented undergraduate students and establish their interest in research in interdisciplinary areas of mathematics and data science. The research in the SURE program will result in publications in open-access, peer-reviewed journals in applied mathematics, statistics, and machine learning.

Statement of Potential Overlap: N/A

1. Project/Proposal Title: RTG: Research and Training in Complex Dynamical Systems Proposal/Award Number (if available):

Source of Support: NSF - National Science Foundation Primary Place of Performance: Illinois Institute of Technology Project/Proposal Support Start Date (if available): 01/2023 Project/Proposal Support End Date (if available): 12/2027 Total Award Amount (including Indirect Costs): $2,391,869

Person-Month(s) (or Partial Person-Months) Per Year Committed to the Project:

|  |  |
| --- | --- |
| **Year** | **Person-months per year committed** |
| 2023 | 0.25 |
| 2024 | 0.23 |
| 2025 | 0.23 |
| 2026 | 0.22 |
| 2027 | 0.25 |

Overall Objectives: The goal is to create a research and training group to nurture U.S. applied mathematicians in complex dynamical systems. This will be accomplished via an interdisciplinary platform that includes research theme teams, innovative courses, summer programs, group discussions, seminars, and workshops.

Statement of Potential Overlap: No overlap.