

Awarded Funding  
**Rachel N. Slaybaugh**

September 16, 2020

**Current**

- Anomaly Detection in Proprietary Data using Multi-Party Computation  
PI: Karl van Bibber (University of California, Berkeley)  
co-PI: *Rachel Slaybaugh* (University of California, Berkeley)  
Agency: Sandia National Laboratory  
Amount awarded: \$332,600  
Period of performance: Oct 1 2018 – Sept 30, 2021  
Role: *awarded with Rachel Slaybaugh as PI*; transitioned to co-PI due to leave of absence
- Training the Next Generation of Nuclear Engineers: Graduate Fellowships at the University of California, Berkeley  
PI: Massimiliano Fratoni (University of California, Berkeley)  
co-PI: Peter Hosemann, *Rachel Slaybaugh* (University of California, Berkeley)  
Agency: Nuclear Regulatory Commission  
Amount awarded: \$400,000  
Period of performance: June 30, 2018 – June 29, 2022
- Methods for Process Monitoring to Accurately Detect and Quantify Material Holdup in Advanced Recycle Facilities  
PI: Kai Vetter (University of California, Berkeley) co-PI: *Rachel Slaybaugh*, Per Peterson, Karl van Bibber (University of California, Berkeley)  
Agency: Department of Energy, Office of Nuclear Energy  
Amount awarded: \$800,000  
Period of performance: Oct 1 2017 – Sept 30, 2020 Role: *awarded with Rachel Slaybaugh as PI*; transitioned to co-PI due to leave of absence
- Department of Energy, Nuclear Science and Security Consortium (NSSC)  
Lead PI: Jasmina Vujic (University of California, Berkeley)  
co-PIs: Karl van Bibber, Kai Vetter, Barbara Jacak, Max Fratoni, Lee Bernstein, *Rachel Slaybaugh*, Michael Nacht, Bethany Goldblum (University of California, Berkeley), Ken Czervinski (University of Nevada, Las Vegas), Michael Thoennessen (Michigan State University), Jason Hayward (University of Tennessee, Knoxville), Allison Macfarlane (George Washington University), Mani Tripathi (University of California, Davis), Mikael Nilsson (University of California, Irvine), Ralf Sudowe (University of Nevada, Las Vegas), Cody Folden (Texas A&M University)  
Agency: Department of Energy, National Nuclear Security Administration  
Amount awarded: \$25,000,000  
Period of performance: 2016 – 2021 Role: *awarded with Rachel Slaybaugh as Modeling and Simulation co-PI*; I stepped down due to leave of absence
- Training the Next Generation of Nuclear Engineers: Graduate Fellowships at the University of California, Berkeley  
PI: Peter Hosemann (University of California, Berkeley)  
co-PI: Massimiliano Fratoni, *Rachel Slaybaugh* (University of California, Berkeley)  
Agency: Nuclear Regulatory Commission  
Amount awarded: \$400,000  
Period of performance: June 30, 2016 – June 29, 2020

## Completed

- Nuclear Engineer Scholarships at the University of California, Berkeley to Support the Expansion and Diversity of the Undergraduate Program  
PI: Massimiliano Fraton (University of California, Berkeley)  
co-PI: Peter Hosemann, *Rachel Slaybaugh* (University of California, Berkeley)  
Agency: Nuclear Regulatory Commission  
Amount awarded: \$400,000  
Period of performance: June 30, 2016 – June 29, 2019
- Nuclear Engineering and Computational Methods  
PI: Rachel Slaybaugh (University of California, Berkeley)  
Agency: Lawrence Livermore National Laboratory  
Amount awarded: \$8,728  
Period of performance: Sept 8, 2016 – Sept 30, 2018
- Improved Hybrid Modeling of Used Fuel Storage Facilities  
PI: Rachel Slaybaugh (University of California, Berkeley)  
Collaborators: T. M. Evans, S. W. Mosher, and D. E. Peplow (Oak Ridge National Laboratory)  
Agency: Department of Energy, Office of Nuclear Energy  
Amount awarded: \$645,393  
Period of performance: Jan 1 2015 – Dec 31, 2017
- MOOSE Application Collaboration Specifically Pronghorn and RELAP-7  
PI: Rachel Slaybaugh (University of California, Berkeley)  
Agency: Idaho National Laboratory  
Amount awarded: \$12,000  
Period of performance: Feb 1 2016 – Jan 31, 2017
- University of California, Berkeley Department of Nuclear Engineering Graduate Fellowship Program  
PI: Rachel Slaybaugh (University of California, Berkeley)  
co-PIs: Massimiliano Fraton, Jasmina Vujic (University of California, Berkeley)  
Agency: Nuclear Regulatory Commission  
Amount awarded: \$400,000  
Period of performance: Aug 1 2014 – July 31, 2018
- Ex-core Dosimetry Calculations for a Pressurized Water Reactor and Comparison to Operational Data  
PI: Rachel Slaybaugh (University of California, Berkeley)  
Agency: National Center for Computational Sciences (NCCS)  
Amount awarded: 5 million hours on Titan Supercomputer  
Period of performance: Feb 23 2017 – Aug 23, 2017
- Transport/Fluence Analysis Methods (purchase order)  
PI: Rachel Slaybaugh (University of California, Berkeley)  
Agency: Westinghouse Electric Company  
Amount awarded: \$50,000  
Period of performance: Jan 1 2016 – Oct 28, 2016
- Department of Energy, Nuclear Science and Security Consortium (NSSC)  
Lead PI: Jasmina Vujic (University of California, Berkeley)  
co-PIs: Micheal Nacht, Heino Nitsche, Rick Norman, *Rachel Slaybaugh*, and Kai Vetter (University of California, Berkeley), B. Sherrill (Michigan State University), M. Tripathi (University of California, Davis), G. Miller (University of California, Irvine), S. Shirk (UC/IGCC), K. Czerwinski (University of Nevada, Las Vegas), S. Lapi (Washington University of St. Louis)  
Agency: Department of Energy, National Nuclear Security Administration  
Amount awarded: \$26,500,000

Period of performance: 2011 – 2016

Role: Per Peterson was the original Nuclear Engineering co-PI; I replaced him when I started in 2014