CV Table

John T. Foster

Table 1: Grants and Contracts

| Role and Co-Investigators | Title | Agency | Grant Total (My Share) | Grant Period |
| --- | --- | --- | --- | --- |
| PI | Sandia X-Prize Necking Challenge | Sandia National Laboratories | $44,700 ($44,700) | 1/2012-12/2012 |
| PI | Peridynamic Simulation of Granular Materials Undergoing Shock Compression | Sandia National Laboratories | $32,597 ($32,597) | 1/2012-12/2012 |
| PI | Statistical coarse-graining of molecular dynamics into peridynamics | Subaward from ARL via Johns Hopkins University | $91,925 ($91,925) | 1/2012-12/2012 |
| co-PI, Sharma, M. (PI) | Fracture Design, Placement And Sequencing In Horizontal Wells, DE-FOA-0000724 | National Energy Technology Laboratory | $1,592,451 ($275,250) | 1/2012-12/2016 |
| PI | Application of Peridynamics to Hydraulic Fracture Modeling | UTSA VPR | $18,927 ($18,927) | 9/2012-8/2013 |
| PI | Peridynamic simulation of pressure-shear experiments on granular media | Sandia National Laboratories | $29,071 ($29,071) | 1/2013-12/2013 |
| PI | Towards a multiscale failure modeling paradigm for polymers: statistical coarse-graining of molecular dynamics into peridynamics. | Subaward from ARL via The Johns Hopkins University | $91,925 ($91,925) | 1/2013-12/2013 |
| PI | Fiber failure modeling with peridynamics | Subaward from ARL via The Johns Hopkins University | $101,306 ($101,306) | 1/2013-12/2013 |
| PI | Predictive simulation of material failure using peridynamics-advanced constitutive modeling, verification, and validation, BAA-AFOSR-2012-0001 | AFOSR | $360,000 ($360,000) | 9/2013-12/2015 |
| co-PI, Madenci, E. (PI),Bobaru, F. (co-PI), Chawla, N. (co-PI), Du, Q. (co-PI) | MURI Center for Material Failure Prediction Through Peridynamics, ONRBAA12-020 | AFOSR | $7,500,000 ($959,153) | 9/2013-12/2018 |
| co-PI, Sharma, M. (PI) | GRA support for hydraulic fracture modeling with peridynmaics (Jason York) | IAP on Hydraulic Fracturing | $39,819 ($39,819) | 1/2015-12/2015 |
| PI | Nonlocal and fractional order methods for near-wall turbulence, large-eddy simulation, and fluid-structure interaction, ONRFOA14-012 | ARO | $345,000 ($345,000) | 1/2015-12/2018 |
| co-PI, Sharma, M. (PI) | GRA support for hydraulic fracture modeling with peridynmaics (Jason York) | IAP on Hydraulic Fracturing | $33,845 ($33,845) | 1/2015-12/2015 |
| PI | Pulse Fracture Simulation | GE Global Research | $100,000 ($100,000) | 1/2016-12/2016 |
| co-PI, Sharma, M. (PI) | GRA support for hydraulic fracture modeling with peridynmaics (Shivam Agrawal) | IAP on Hydraulic Fracturing | $67,664 ($33,832) | 1/2016-12/2019 |
| PI | ASCeND: ASymptotically Compatible strong form foundations for Nonlocal Discretization. | Sandia National Laboratories | $300,000 ($300,000) | 9/2018-10/2021 |
| PI | Student and Postdoc Travel Support for the 15th USNCCM in Austin, TX | NSF, Proj. No. 1935320. | $25,000 ($25,000) | 1/2019-8/2019 |
| co-PI, Pyrcz, M. (co-PI) | Hildebrand Seed Grant for Data Science Research Initiative | PGE | $50,000 ($25,000) | 1/2019-12/2019 |
| PI | Moncrief Grand Challenge: GFEM Framework for Reservoir Simulation of Unconventionals | Oden Institute | $75,000 ($75,000) | 1/2019-9/2019 |
| co-PI, Pyrcz, M. (co-PI) | DiReCT: Digital Reservoir Characterization Technology | DiReCT IAP | $960,000 ($420,000) | 7/2019-8/2023 |
| PI | MATNIP: Mathematical Foundations of Nonlocal Interface Problems | Sandia National Laboratories | $121,000 ($121,000) | 9/2020-10/2022 |
| PI | Assessing Capillary End Effects on Large Scale Tight Reservoir Drainage | American Chemical Society | $110,000 ($110,000) | 1/2021-12/2023 |
| co-PI, Espinoza, D (PI) | Hydrogen storage in salt caverns in the Permian Basin: Seal integrity evaluation and field test | DOE | $1,854,361 ($122,000) | 9/2023-8/2026 |
| co-PI, Lu, Y. (PI), Pyrcz, M. (co-PI) | Unconventional Well Optimization based on Machine Learning | University Lands | $75,000 ($25,000) | 9/2023-8/2025 |
| co-PI, Lu, Y. (PI), Pyrcz, M. (co-PI) | Unconventional Well Optimization based on Machine Learning | Hildebrand Seed Grant | $75,000 ($25,000) | 9/2023-8/2025 |
|  |  | Totals | $14,094,591 ($3,805,350) |  |
|  | Indicates awarded in rank |  | $3,713,025 ($1,281,832) |  |
|  | Indicates research spending in rank |  | $5,369,449 ($1,779,138) |  |