Department of Energy Announces $11 Million for Research for Exploratory Research in Extreme-Scale Science

Annoucement Number: *DE-FOA-0002950 EXPRESS - 2023 Exploratory Research for Extreme-Scale Science* *List Posted:* *8/10/2023*

Selection for award negotiations is not a commitment by DOE to issue an award or provide funding.

Principal Investigator	Title	Institution	City	State	9-digit zip code
Achour, Sara	A Programming System for Efficient Analog Computation	Stanford University	Redwood City	CA	94063-8445
Marvian, Milad	Bridging between quantum circuit model and constrained Hamiltonian-based computation	University of New Mexico	Albuquerque	NM	87131-0001
Tumeo, Antonino	ChemComp: a Compilation Framework for Computing with Chemical Reaction Networks	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Doty, David	Compiling Ordinary (Discrete) Algorithms to Ordinary Differential Equations	University of California, Davis	Davis	CA	95618-6153
Soloveichik, David	Compiling Ordinary (Discrete) Algorithms to Ordinary Differential Equations	The University of Texas at Austin	Austin	TX	78759-5316
Siopsis, George	Converting quantum algorithms from circuit-based to measurement-based quantum computing for photonic devices	The University of Tennessee	Knoxville	TN	37996-1529
Herrman, Rebekah	Converting quantum circuits to dynamic continuous-time quantum walks	The University of Tennessee	Knoxville	TN	37996-1529
Saleem, Zain	Converting quantum circuits to dynamic continuous-time quantum walks	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
Lowe-Power, Jason	Cryo-Phoenix: Cryogenic and Photonic Zetta-Scale Supercomputing System Modeling	University of California, Davis	Davis	CA	95618-6153
Stojanovic, Vladimir	Cryo-Phoenix: Cryogenic and Photonic Zetta-Scale Supercomputing System Modeling	University of California	Berkeley	CA	94710-1749
Vasudevan, Dilip	Cryo-Phoenix: Cryogenic and Photonic Zetta-Scale Supercomputing System Modeling	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Quiroz, Gregory	Entanglement-Informed Translations Between AQC and QAOA	The Johns Hopkins University	Baltimore	MD	21218-2686
Dong, Sijia	Framework for Converting Gate-Based Quantum Computing Models to Quantum Annealing Models for Large-Scale Electronic Structure and Dynamics Simulations	Northeastern University	Boston	MA	02115-5005
Gerstlauer, Andreas	Hierarchical, AI-Enabled Modeling and Optimization of Future Supercomputers	The University of Texas at Austin	Austin	TX	78759-5316
Li, Lingda	Hierarchical, AI-Enabled Modeling and Optimization of Future Supercomputers	Brookhaven National Laboratory (BNL)	Upton	NY	11973-5000
Hernandez Mendoza, Oscar	Leveraging Open Source Simulators to Enable HW/SW Co-Design of Next-Generation HPC Systems	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Sinclair, Matt	Leveraging Open Source Simulators to Enable HW/SW Co-Design of Next-Generation HPC Systems	University of Wisconsin-Madison	Madison	WI	53715-1218
Kose, Selcuk	Modeling the Memory-Compute Gap in Large-scale Superconductive Systems	University of Rochester	Rochester	NY	14611-3847
Hormozi, Layla	Quantum Algorithms Across Topological and Quantum Circuit Models	Brookhaven National Laboratory (BNL)	Upton	NY	11973-5000
Huang, Xiang	Towards A Hierarchy of Real Numbers Computable by Chemical Reaction Networks	University of Illinois Springfield	Springfield	IL	62703-5407
Yuen, Henry	Translating Quantum Circuits to Hybrid Digital/Analog Hamiltonian Simulators	Columbia University in the City of New York (Morningside Campus)	New York	NY	10027-7922