

Department of Energy Announces \$96 Million for Research on Early Career Awards

Announcement Number: DE-FOA-0003602 List Posted: 10/8/2026

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

Principal Investigator	Title	Institution	City	State	ZIP Code
Ahn, Junyeong	Dynamical Control of Chiral Superconductivity	The University of Texas at Austin	Austin	TX	78712
Anza, Fabio	Agentic Theory: A New AI Paradigm for Formally Verified Scientific Reasoning	University of Maryland Baltimore County	Baltimore	MD	21250-0001
Asthana, Ayush	Toward Resolving the f-Electron Challenge in Heavy-Element Chemistry with Spinor Krylov Algorithms on Classical and Early Fault-Tolerant Quantum Computers	University of North Dakota	Grand Forks	ND	58202-7306
Autrey, Suzanne	Quantifying Fluid Pressure Controls on Critical Mineral Formation Using Raman Spectroscopy and Experimentation	Northern Illinois University	DeKalb	IL	60115-2864
Bae, Youn Jue	Excitonic Control of Angular Momentum and Dissipation in a Magnetic Semiconductor	Cornell University	Ithaca	NY	14850-2820
Bafia, Daniel	Interfacial Origins of Vortex Pinning and Microwave Dissipation In Superconducting Quantum Materials	Fermi National Accelerator Laboratory (FNAL)	Batavia	IL	60510-5011
Bailey, Gwendolyn	Harnessing Ternary Metal-Sulfur Clusters and Extended Materials for Sustainable Fuel Synthesis	Regents of the University of Minnesota	Minneapolis	MN	55455-2070
Bay, Konane	Elucidating the mechanistic relationships between interfacial interactions and failure properties of multilayer polymer films	The Regents of the University of Colorado d/b/a University of Colorado	Boulder	CO	80303-1058
Bazazi, Parisa	Multiphase Transport of Critical Minerals in Fractured Media Mediated by Gas Nanostructures	Colorado School of Mines	Golden	CO	80401-1887
Bhowmick, Asmit	Predictive Modeling of Water and Hydrogen-bond networks in Energy Conversion	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Biasin, Elisa	Fluctuation-Gated Chemistry: Tracking Collective Dynamics in Aqueous Solutions	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Burby, Joshua	Sidestepping Grad's Conjecture	The University of Texas at Austin	Austin	TX	78712
Carpenter, William	Illuminating nanoscale dynamics of microbial carbon conversion organelles	The Ohio State University	Columbus	OH	43210-1016
Catanach, Tommie	Toward Scalable and Reliable Bayesian Inference for Intractable Inverse Problems Through Entropy and Geometry	Sandia National Laboratories, California (SNL-CA)	Livermore	CA	94551-0969
Cersonsky, Rose	Field-Directed Control of Crystallization in Polymorphic Organic Molecules	Board of Regents of the University of Wisconsin System, operating as University of Wisconsin-Madison	Madison	WI	53715-1218
Cheng, Bingqing	Field-Driven Molecular Mechanisms at Electrified Interfaces with Defects	The Regents of University of California	Berkeley	CA	94710-1749
Cheng, Yifan	Developing a Scalable AI-E3SM Diagnostic Framework: Enabling Wet Urban Parameterization for Coastal-Urban Energy Resilience	Research Foundation for the State University of New York d/b/a RFSUNY - University at Buffalo	Amherst	NY	14228-2567
Chiang, Naihao	Molecular Torsional Control Enhanced by Chiral Plasmonics	University of Houston	Houston	TX	77204-2015
Conley, Raymond	Advanced Atomic Layer Deposition for Hard X-ray Nano-focusing Optics	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
De la Torre Duran, Alberto	Light-induced metastability in quantum materials	Northeastern University	Boston	MA	02115-5005
Elliott, Sarah	Full-fidelity Reaction Network Mapping for Chemical Kinetic Mechanisms	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
Fang, Chengcheng	Field-Assisted Metastable Phase Formation in Complex Oxides via Internal Oxygen Chemical-Potential Gradients	Michigan State University	East Lansing	MI	48824-2600
Fraggedakis, Dimitrios	Theory of Thermodynamic and Transport Mechanisms Governing Ion-Selective Separations	The Trustees of Princeton University	Princeton	NJ	08544-2020
Gaynor, James	Understanding The Role of Vibronic Dynamics at the Spinterface in the CISS Effect	Northwestern University	Chicago	IL	60611-4579
Geng, Tony	Continuous-Time Physical AI as Real-Time Digital Twins for Scientific Edge Systems	William Marsh Rice University	Houston	TX	77005-1892

Gontcho A Gontcho, Satya	The High-Redshift Frontier in Galaxy Survey Cosmology	The Rector and Visitors of the University of Virginia	Charlottesville	VA	22904-4195
Hautzinger, Matthew	Spin and Charge Manipulation in Novel 2D Chiral Hybrid Semiconductors	National Laboratory of the Rockies (NLR)	Golden	CO	80401-3111
He, Baoye	Linking Environmental Stress to Sorghum Productivity Through Extracellular Vesicle-Driven Rhizosphere Function	Texas A&M AgriLife Research	College Station	TX	77843-3578
Henneberg, Sophia	Stability of 3DOTs (Three-dimensional optimized tokamaks)	Massachusetts Institute of Technology	Cambridge	MA	02139-4307
Huang, Cheng	Self-Adaptive Multi-Fidelity Data-Assimilation Reduced-Order Modeling Framework for Complex Multi-Physics Systems	University of Kansas Center for Research, Inc.	Lawrence	KS	66045-7568
Iwai, Ryoto	Liquid Lithium Film Jet for High-intensity Beams	Michigan State University	East Lansing	MI	48824-2600
Khatiwada, Rakshya	Quantum Advantage in Detecting Weak Coherent Signals with Entangled Superconducting Qubits	Illinois Institute of Technology	Chicago	IL	60616-3717
Klco, Natalie	Gauge field quantum simulations in the age of controllable quantum noise	Duke University	Durham	NC	27705-4010
Klepov, Vladislav	Tuning Actinide Orbital Mixing via Chemical Pressure in Solid State Frameworks	University of Georgia	Athens	GA	30602-1589
Kobayashi, Yuki	Recollision physics of exciton quantum states in low-dimensional materials	Regents of the University of Michigan	Ann Arbor	MI	48108-2744
Krishna, Siddarth	Controlling Dynamic Multi-Site Redox Catalysis on Solid Surfaces	Board of Regents of the University of Wisconsin System, operating as University of Wisconsin-Madison	Madison	WI	53715-1218
Kuberry, Paul	Surrogate-Accelerated Interface Transfer Operators (SAITO) for Efficient and Robust Coupling of Heterogeneous Numerical Methods	Sandia National Laboratories, New Mexico (SNL-NM)	Albuquerque	NM	87185-0100
Li, GUSHU	AutoQEC: Algorithmic Foundations for Quantum Error Correction Design and Optimization	The Trustees of the University of Pennsylvania	Philadelphia	PA	19104-6205
Liu, Junliang	Effects of High Magnetic Fields on Hydrogen Retention in Vanadium Alloys	Florida State University	Tallahassee	FL	32306-4166
Lu, Qiugang (Jay)	Enforcing Goal-Oriented Priors in High-Dimensional Inverse Problems	Texas Tech University	Lubbock	TX	79409-1035
Mills, Carolyn	Design Rules for Autonomous Propagation of Order in Hierarchical Biological Block Copolymers	Regents of the University of California, Santa Barbara	Santa Barbara	CA	93106-2050
Montes de Oca, Joan	Hidden Fields, Broken Bonds: How Nonequilibrium Electrostatics Drives Polymer Degradation	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
Mori, Ryo	Light-Induced Nonequilibrium in Antiferromagnetic van der Waals Semiconductors: Electronic, Excitonic, and Spin-Coupled Origins	University of Maryland	College Park	MD	20742-5141
Muller, Niklas	Leveraging Quantum Information Science for Nonequilibrium Phenomena in Nuclear Physics	University of New Mexico	Albuquerque	NM	87131-0001
Neumayer, Sabine	Ultrabroadband Microscopy of Multiscale Charge Dynamics in Interface-Tunable Neuromorphic Heterostructures	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Nielander, Adam	Elucidating the Fundamentals of (Photo-) electrocatalytic Nitrogen Transformation	SLAC National Accelerator Laboratory	Menlo Park	CA	94025-7015
Noack, Marcus	Next-Generation Gaussian Processes for Scalable, Probabilistic Scientific Machine Learning	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Ong, Wei Jia	An Integrated Approach to Understanding the Nucleosynthesis of the p-nuclei	Lawrence Livermore National Laboratory (LLNL)	Livermore	CA	94551-0808
Pringle, William	Integrating Coupled Large Lake-Atmosphere Dynamics into E3SM: Understanding Coastal System Predictability with Human Process Interactions	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
Ricarte, Ralm	Molecular Mechanisms Driving Enhanced Energy Dissipation in Dual Cross-Link Elastomers	Florida State University	Tallahassee	FL	32306-4166
Rimsza, Jessica	Unraveling Emergent Separation Mechanisms in Complex Solvent Environments	Sandia National Laboratories, New Mexico (SNL-NM)	Albuquerque	NM	87185-0100
Roloff, Jennifer	Illuminating the beauty of quarks	Brown University	Providence	RI	02912-2912
Schrade, Constantin	Real-Space Quantum Geometry of Altermagnetic Textures: A Route to Spin Control at Zero Magnetization	Louisiana State University and A&M College	Baton Rouge	LA	70803-0001
Sears, Jennifer	Characterization and Control of Magnetic Symmetry in Spin-polarized Materials	Brookhaven National Laboratory (BNL)	Upton	NY	11973-5000

Semeghini, Giulia	Quantum Computing Primitives for Molecular Simulations with Dual-Species Atom Arrays	President and Fellows of Harvard College	Cambridge	MA	02138-5369
Shao, Shu-Heng	Continuum and Lattice Approaches to Generalized Symmetries	Massachusetts Institute of Technology	Cambridge	MA	02139-4307
Shee, James	Predictive quantum dynamics of programmable iron-sulfur cluster networks and multi-exciton energy transduction enabled by first principles stochastic quantum chemistry	William Marsh Rice University	Houston	TX	77005-1892
Sternbach, Aaron	Terahertz near-field spectroscopy of twisted 2D materials and few-layer heterostructures	University of Maryland	College Park	MD	20742-5141
Susarla, Sandhya	Visualizing ferrons at the (sub)nanoscale	Arizona Board of Regents for Arizona State University	Scottsdale	AZ	85257-3538
Tan, Tzer Han	Medium-Mediated Physical Learning in Nonreciprocal Active Materials	The Regents of the University of California - UCSD	La Jolla	CA	92093-0934
Thiele, Nikki	Carcerand Encapsulation as a New Paradigm for Chelating Emerging DOE Medical Radionuclides	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Tuchinda, Nutth	The Role of Entropy in the Interfacial Cohesion of Metals and Alloys	New Jersey Institute of Technology	Newark	NJ	07102-1982
Wang, Dan	Physics-Guided, Hardware-Aware AI for Adaptive and Scalable Control of Accelerators	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Wang, Xi	Exciton-Spin Coupling for Optical Control of Spin States in Low-Symmetry vdW Heterostructures	Washington University	St Louis	MO	63130-4862
ZAHN, EINARA	Sea-breeze intrusion in coastal cities: from urban boundary layer structure to building energy demand	The Trustees of the University of Pennsylvania	Philadelphia	PA	19104-6205
Zhang, Ying	Revealing Cross-Scale Impacts of Short-Duration Coastal Extreme Events on Long-Term Energy System Evolution Through AI-Enabled Coupling of Earth and Human System Models	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Zhu, Ziyang	Structural Origins of Emergent Order in Moiré Materials	Trustees of Boston College	Chestnut Hill	MA	02467-3961