

Energy Department announces first Genesis Mission projects to accelerate new era of AI-driven scientific discovery

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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
Advani, Suresh	AI-Driven Closed-Loop Digital Twin for Real-Time Monitoring and Autonomous Adaptive Control of Resin Flow and Cure in Composite Manufacturing	University of Delaware	Newark	DE	19716-0099
Agapie, Theodor	AI-Enabled Electrochemical Refinery	California Institute of Technology	Pasadena	CA	91125-0001
Ajo-Franklin, Caroline	Predictive AI to Map Point Mutation Effects on Protein Function: Measurement and Biosynthesis of Isoprenoids	William Marsh Rice University	Houston	TX	77005-1892
Alegria, Loren	PRISM-Q: Physics-Reinforced Intelligence for Superconducting Microsystems and Quantum Control	Lawrence Livermore National Laboratory (LLNL)	Livermore	CA	94551-0808
Almgren, Ann	ASPIRE: ARM-driven Simulation for Physical Insight Research Engine	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Armstrong, Whitney	Superconducting Polychronous Computation Near Criticality	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
Arya, Gaurav	AI-Driven Inverse Design of Patchy DNA Origami for Assembly of Programmable Superlattices	Duke University	Durham	NC	27705-4010
Asmussen, Matt	WASTECHAT: The First Tool Towards a Domain Foundational Model for DOE-EM	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Atkinson, Joshua	MOBILE-PATH: machine-learning Optimization of Biological Interfaces for Lateral gene Exchange PATHways	The Trustees of Princeton University	Princeton	NJ	08544-2020
Bader, Sven	TRACER (TSPA Retrieval And Characterization Engine for Repositories): An AI-Enabled Engine to Retrieve, Structure, and Qualify TSPA Inputs Across Geologies and Waste Forms	Electric Power Research Institute	Palo Alto	CA	94304-1395
Badnava, Babak	From Static to Adaptive Grids: Autonomous Topology Control at Scale	Siemens Energy, Inc.	Orlando	FL	32826-2301
Bailey, Sean	A Physically-Informed Neural Network for Power-grid Resilience to Extreme Wind Events	University of Kentucky Research Foundation	Lexington	KY	40526-0001
Banerjee, Sourav	AI-STRATA3D: Autonomous Physics-Informed Framework for Subsurface Characterization and Fatal Flaw Detection Using Multi-Source Data Fusion and Uncertainty Quantification	University of South Carolina	Columbia	SC	29208-0001
Bao, Jie	STEAM: Smart Twin for Electrode/Electrolyte Advanced Manufacturing for Fuel Cells and Electrolyzers	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Barabash, Sergey	AlphaFilm: Closed-Loop AI for Thin-Film Materials	Exabyte Inc.	Walnut Creek	CA	94596-5129
Bass, Steffen	From Data to Equation of State: AI-Driven Discovery of Optimal Observables in Heavy-Ion Collisions	Duke University	Durham	NC	27705-4010
Basu Roy, Rohan	Dispatchable Data Centers: AI-Driven Workload Flexibility for Grid-Aware Load Shaping	University of Utah	Salt Lake City	UT	84102-9023
Bathe, Stefan	Characterizing Jet Modification in the Quark-Gluon Plasma Using Unsupervised, Cycle-Consistent Generative Learning	Research Foundation of The City University of New York d/b/a RFCUNY - Baruch College	New York	NY	10010-5585
Bazant, Martin	AI-driven discovery of electrochemical separation methods for rare earth elements	Massachusetts Institute of Technology	Cambridge	MA	02139-4307
Becchi, Michela	An Agentic LLM Workflow for Code Generation and Optimization on Emerging AI Accelerators	North Carolina State University	Raleigh	NC	27695-7514

Bermejo-Moreno, Ivan	AI-driven subgrid-scale model for large-eddy simulation of turbulent flows based on geometry and tracking of turbulence structures	University of Southern California	Los Angeles	CA	90089-4304
Bernauer, Jan	Foundation Models for Transferable Particle Tracking in Nuclear Physics	Research Foundation for the State University of New York d/b/a RFSUNY - Stony Brook University	Stony Brook	NY	11794-3362
Biedermann, Grant	AI-Driven Control and Optimization of QuDit Platforms in Rydberg Arrays	Board of Regents of the University of Oklahoma	Norman	OK	73019-9705
Bishop, Kyle	AI-Enabled Physical Operating System for Bio-programmable Matter	The Trustees of Columbia University in the City of New York (Morningside Campus)	New York	NY	10027-7922
Blackmon, Jeffery	Accelerating Nuclear Data Delivery Using AI/ML Approaches in High Complexity Data Sets	Louisiana State University and A&M College	Baton Rouge	LA	70803-0001
Bonesteel, Nicholas	AI-Driven Decoding for Next Generation Topological Quantum Codes	Florida State University	Tallahassee	FL	32306-4166
Borowiec, Katarzyna	FADO: Fusion Agentic Design Orchestrator	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Bortz, David	Weak-Form Agentic Digital Twins for Real-Time Control of Magnetically Confined Fusion Systems Under Sparse Observation	The Regents of the University of Colorado d/b/a University of Colorado	Boulder	CO	80303-1058
Boutan, Christian	Autonomous Quantum Amplifier Workflow Optimization and Learning Framework (AQUA-WOLF)	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Brophy, Jennifer	AI-Driven Design of Gene Expression Programs in Plants Using Foundation Models and High-Throughput DNA Synthesis	Board of Trustees of the Leland Stanford Junior University	Palo Alto	CA	94063-8445
Brown, Kevin	AI-Driven, Self-Learning Digital Twins for Robust Operation of Particle Accelerators	Brookhaven National Laboratory (BNL)	Upton	NY	11973-5000
Bucsek, Ashley	AI-enabled real-time reconstructions and interpretation for rapid 3D Xray diffraction and imaging of materials under stress and extreme environments	Regents of the University of Michigan	Ann Arbor	MI	48108-2744
Burton, Justin	Data-Driven Discovery of Multicomponent Plasma Fluid Dynamics	Emory University	Atlanta	GA	30322-4250
Cao, Charles	AI-enabled co-design of fault-tolerant logical interface in quantum LDPC codes	Virginia Polytechnic Institute and State University	Blacksburg	VA	26061-0001
Capolungo, Laurent	AI-Guided Creep-Fatigue Life Prediction for Fusion Structural Materials	Los Alamos National Laboratory (LANL)	Los Alamos	NM	87544-0600
Carini, Gabriella	Deployable Cavity Coupled Cold Atom Quantum Sensing Platform Driven by Agentic AI	Brookhaven National Laboratory (BNL)	Upton	NY	11973-5000
Catanach, Tommie	Agent Bayes: A Foundation Model for Bayesian Scientific Reasoning	Sandia National Laboratories, California (SNL-CA)	Livermore	CA	94551-0969
Ceder, Gerbrand	A-WILD: AI-driven Workflows for Intelligent Lab Discovery	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Chen, Bailian	AI-Enabled Decision-Support Platform for Stimulation Design, Fracture Characterization, and Production Optimization Toward Doubling Subsurface Energy Recovery	Los Alamos National Laboratory (LANL)	Los Alamos	NM	87544-0600
Chen, Jacqueline	Physics Informed Transformer Foundation Model with Uncertainty Quantification for Coupled Eulerian and Lagrangian Flow Physics (PIT-FM)	Sandia National Laboratories, California (SNL-CA)	Livermore	CA	94551-0969
Chen, Shikui	Geometry-Informed AI for Accelerated Multiphysics Co-Design of Wide-Bandgap Power Modules	Research Foundation for the State University of New York d/b/a RFSUNY - Stony Brook University	Stony Brook	NY	11794-3362
Chen, Xingyuan	AI-Guided Model-Experiment Framework for Predicting Water Availability in Energy Systems Using Multi-Fidelity Watershed Modeling	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Chen, Yiran	Neuromorphic Circuit Primitives for Robotic Embodied Physical AI	Duke University	Durham	NC	27705-4010
Chiu, Christine	Latent Representation Learning for Understanding Ice Microphysical and Precipitation Processes Constrained by Radar and In Situ Observations	Colorado State University	Fort Collins	CO	80523-2002
Christ, Norman	AI-accelerated sampling for critical slowing down in lattice QCD	The Trustees of Columbia University in the City of New York (Morningside Campus)	New York	NY	10027-7922
Chu, Kung-Hui	AI-Guided Map for Biomining of Critical Minerals (AIM-BioCM): Integrating Microbial, Hydrological, and Geochemical Data	Texas A&M Engineering Experiment Station	College Station	TX	77842-3131
Cohen, Orion Archer	AI-Driven Discovery of Rare Earth Separation Chemistry	Riven Corporation	New York	NY	10027-2510
Costello, David	AI-Driven Probabilistic Source Mapping for Critical Minerals at Continental Scale	Kent State University	Kent	OH	44242-0001

Cusentino, Mary Alice	AI-Augmented Digital Twins for "Born-Digital" Fusion Material Interfaces	Sandia National Laboratories, New Mexico (SNL-NM)	Albuquerque	NM	87185-0100
Danielson, Thomas	SCOPE: Salt Chemistry Optimization and Prediction Engine for Nuclear Waste Treatment Planning	Savannah River National Laboratory (SRNL)	Aiken	SC	29808-0001
Darve, Eric	ORACLE: Observatory for Reasoning, Anomaly detection, and Causal Learning in Experiments	Board of Trustees of the Leland Stanford Junior University	Stanford	CA	94063-8445
Date, Prasanna	Spiking Transformers for Neuromorphic AI	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Dean-Kersten, Bethany	AI-Enabled Digital Twins for Commercializing Fuel Recycling and Securing Advanced Reactor Fuel Supply Chains	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
Demanet, Laurent	AI for learning missing constitutive structure in fracture models	Massachusetts Institute of Technology	Cambridge	MA	02139-4307
Detrick, Kent	AI-Enabled Multi-Reference Electrochemical Digital Twin for Autonomous Molten Salt Reactor Operations	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
DeWitt, Stephen	Pipit: A foundation model factory for manufacturing and materials engineering using agentic code generation	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Djordjevic, Blagoje	Digital Twins for Laser-Plasma Wakefield Acceleration: From Plasma Channel Formation to Beam Optimization	Lawrence Livermore National Laboratory (LLNL)	Livemore	CA	94551-0808
Drgona, Ján	From Chip to Chiller: Verifiable Edge AI Agents for Data Center Thermal Management	The Johns Hopkins University	Baltimore	MD	21218-2686
Dubrawski, Artur	GEM-AI: Generative Exploration of Minerals using AI	Carnegie Mellon University	Pittsburgh	PA	15213-3890
Duzgun, Sebnem	Agentic GeoAI for Precision Mineral Exploration (AGAPEX)	Colorado School of Mines	Golden	CO	80401-1887
Elizondo, Marcelo	Accelerating Electromagnetic Transient Analysis through Physics-Informed Scalable Artificial Intelligence Models for Rapid Load Growth	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Faiola, Celia	From Molecules to Precipitation: Machine Learning Bridges Aerosol Microphysics, Atmospheric Turbulence, and Cloud Formation	Regents of the University of California, Irvine	Irvine	CA	92697-7600
Fanelli, Cristiano	Mixture-of-Experts Foundation Models for Scalable Holistic Reconstruction, Modeling, and Interpretation of Particle Interactions	The College of William and Mary	Williamsburg	VA	23187-8795
Feng, Yan	Physics-Informed Machine Learning of Cloud Microphysics for High-Resolution Earth System Modeling with Observationally Constrained Online Training	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
Ferracin, Paolo	Toward Physics Informed Digital Twins for Fusion Magnet Systems	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Fisher-Vanden, Karen	AI-powered frameworks to enhance grid resilience under high-dimensional uncertainties	Arizona Board of Regents for Arizona State University	Scottsdale	AZ	85257-3538
Fraser, James	Structural dynamics enable enzyme design for useful biotechnology	The Regents of the University of California, San Francisco (UCSF)	San Francisco	CA	94143-0000
Fu, Yucheng	GOLD-FLOW: Geometry-aware Operator Learning for Design of Flow Systems	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Galvin, Conor	An Autonomous AI Framework for Closed-Loop Nuclear Fuel Qualification	Los Alamos National Laboratory (LANL)	Los Alamos	NM	87544-0600
Garcia Ruiz, Ronald Fernando	AI-Driven Quantum Sensing for Precision Tests of Fundamental Physics	Massachusetts Institute of Technology	Cambridge	MA	02139-4307
Ghassemi, Ahmad	AI-Enabled Rapid Analysis and Control of EGS Stimulation Using Machine Learning & Physics-Based Hydraulic Fracture/Natural Fracture (HF/NF) Interaction Modeling	Board of Regents of the University of Oklahoma	Norman	OK	73019-9705
Gleich, David	Source Inversion: A Composable Provenance Module\\for Scientific Foundation Models	Purdue University	West Lafayette	IN	47906-1332
Gopalaswamy, Varchas	Autonomous Implosion Design and Experimental Co-piloting via Physics-Grounded Agentic AI	University of Rochester	Rochester	NY	14611-3847
Greer, Bruce	AI-Assisted Manufacturing and Qualification-Ready Digital Traceability for Steel-Composite Nuclear Module Welding and Inspection	Electric Power Research Institute	Palo Alto	CA	94304-1395
Gruszek, Julieta	Enabling Rare Event Discovery with Surrogate Modeling and Simulation AI Agents	University of North Carolina at Chapel Hill	Chapel Hill	NC	27599-1350
Gu, Xin	Physics-Informed AI for Accelerated Discovery of Ion-Adsorption-Type Rare Earth Element Resources in Granitic Systems	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Guo, Yi	AI-Driven Design and Control for Performance and Durability	Clemson University	Clemson	SC	29634-5702
Hallar, Anna	Bridging Resolution Disparities in the GENESIS of Mixed-Phase Clouds (BRIDGE)	University of Utah	Salt Lake City	UT	84102-9023

Hammond, Glenn	AI-Driven Physics-Based Digital Twins for In-Situ Uranium Mining Optimization	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Hartwig, John	Hierarchical Multi-Modal AI for the Discovery of Regioselective Molecular Catalysts	The Regents of University of California	Berkeley	CA	94710-1749
He, Qizhi	Generative AI-Enabled Digital Twins for Subsurface Fracture Systems with Active Learning Multiphysics Data Assimilation	Regents of the University of Minnesota	Minneapolis	MN	55455-2070
Herman, Herman	Robust, efficient, scalable cross-cutting AI-based stack to leverage multiple heterogenous autonomous labs for massively parallel experiments	Carnegie Mellon University	Pittsburgh	PA	15213-3890
Hoffman, Calem	An Active-Learning Prioritization Engine for Nuclear Data Relevant to X-Ray Bursts	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
Hong, Victoria	Genesis Mission: Accelerating ENSDF Nuclear Data Evaluation with Physics-Informed AI	St. Joseph's University	Brooklyn	NY	11205-3660
Horn, Tanja	AI-Driven Expedited Discovery and Background Separation for Petabyte-Scale Streaming Readout	Catholic University of America	Washington	DC	20064-0001
Isaacman-VanWertz, Gabriel	Advancing Multimodal and Multidimensional AI to Discover Connections between Cloud Microphysics and Precipitation	Virginia Polytechnic Institute and State University	Blacksburg	VA	26061-0001
Isaacs, Farren	Generative AI for Genome Design: Toward Predictable Synthetic Genomes	Yale University	New Haven	CT	06520-8327
Islam, Tanzima	OPTIX: A Multi-Modal Foundation Model for Performance-Aware HPC Code Intelligence	Texas State University	San Marcos	TX	78666-4684
Isler, Ibrahim Volkan	SAFE-BOLT -- Safety-Assured Force-aware Execution for Bimanual Operations on Lab Tools	The University of Texas at Austin	Austin	TX	78712-1111
Janik, Michael	Transient Kinetics and Spectroscopy for Agentic Digital Twins to Upgrade Domestic Alkane Feedstocks into Value-Added Chemicals	The Pennsylvania State University	University Park	PA	16802-7000
Jayaraman, Balaji	Framework for Optimized Rotating blade design using Generative Engineering (FORGE)	GE Vernova Operations, LLC DBA GE Vernova Adv Research Ctr	Niskayuna	NY	12309-1004
Ji, Hantao	Towards a FLARE Digital Twin: Accelerating Experimental Research Using Neural Networks	The Trustees of Princeton University	Princeton	NJ	08544-2020
Jiao, Yongqin	BIND: Biophysics-Informed Learning of Coordination for Metalloprotein Design	Lawrence Livermore National Laboratory (LLNL)	Livermore	CA	94551-0808
Jornada, Felipe	AI-Driven Transport Optimization of Metallic and Interfacial Quantum Materials (ATOMIQ)	Board of Trustees of the Leland Stanford Junior University	Stanford	CA	94063-8445
Jung, WooHyun	LLM-based agentic AI assistant to automatically generate the input deck for severe accident system codes	Board of Regents, obo, Nevada System of Higher Education (NSHE) - University of Nevada, Las Vegas	Las Vegas	NV	89154-1055
Kametani, Fumitake	AI-accelerated digital twin for REBCO coated conductor manufacturing in superconducting fusion magnet systems	Florida State University	Tallahassee	FL	32306-4166
Kang, Peter	AI-Guided Discovery of Dissolution Regimes and Optimal Conditions for In Situ Critical Mineral Extraction	Regents of the University of Minnesota	Minneapolis	MN	55455-2070
Karthein, Jonas	Scalable Agentic Digital Twins for Autonomous Precision Facilities	Texas A&M University	College Station	TX	77845-4321
Kawakami, Roland	A.I. for Orbital Electronics Materials and Manufacturing	The Ohio State University	Columbus	OH	43210-1016
Keidar, Michael	AI-based adaptive low-temperature plasma for healthcare, agriculture and advanced manufacturing	The George Washington University	Washington	DC	20052-0042
Keitz, Benjamin	Ultra High Throughput Characterization and Predictive Design of CMM Binding Proteins	The University of Texas at Austin	Austin	TX	78712-1111
Kim, Isaac	AI-Driven Discovery of Early Fault-Tolerant Quantum Computation Primitives	Regents of the University of California, Davis	Davis	CA	95618-6153
Kiran, Mariam	Science-Aware Network Operations for Research Networks (SciNet)	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Klimentov, Alexei	Transforming Computing Cyber infrastructure for Collider Experiments to AI Based Computing and AI-ready Data	Brookhaven National Laboratory (BNL)	Upton	NY	11973-5000
Knaian, Ara	Developing a Digital Replica of a Deuterium-Tritium Process Loop for Fusion Fuel Cycle Optimization	Accelaron Fusion, Inc	Cambridge	MA	02139-1430
Kolemen, Egemen	Foundation Model Platform for Fusion Energy: A Multi-Modal Multi-Device Learning	The Trustees of Princeton University	Princeton	NJ	08544-2020
Kortshagen, Uwe	AI-driven rapid discovery of plasma deposition for novel materials for next-generation semiconductor devices	Regents of the University of Minnesota	Minneapolis	MN	55455-2070
Krahn, Steven	Development of an AI-Informed, Standards-Based, Model-Based Systems Engineering Methodology to Enhance Fusion Power Plant Life-Cycle Engineering	Vanderbilt University	Nashville	TN	37235-7749
Krunz, Marwan	PARSE: Physics-Informed Adversarial Robustness for Scientific AI-Enabled Workflows	Arizona Board of Regents, The University of Arizona	Tucson	AZ	85721-0158

Kyrillidis, Tasos	Cracking the VQA Optimization Bottleneck: AI Methods for Quantum Chemistry and Materials	William Marsh Rice University	Houston	TX	77005-1892
Lamb, Kara	Cloud Microphysics Multi-Scale Modeling Moonshot (CM4): Creating the next generation of uncertainty-aware cloud models by leveraging multi-fidelity AI and DOE observations	The Trustees of Columbia University in the City of New York (Morningside Campus)	New York	NY	10027-7922
Law, Stephanie	AI-Orchestrated Multimodal Platforms for Accelerated Discovery, Scale-Up, and Deployment of 2D Materials	The Pennsylvania State University	University Park	PA	16802-7000
Lee, Myoungkyu	Physics-Informed AI Surrogates for Turbulent Forced Convection in Energy System	University of Houston	Houston	TX	77204-2015
Li, Aobo	Denosing Quantum Sensors: Agentic Algorithm Creation and Real-Time AI for Quantum-Enabled Rare Event Discovery	The Regents of the University of California - UCSD	La Jolla	CA	92093-0934
Li, Hong-Yi	RIVER-AI: Reservoir-Groundwater Interactions for River Flow Variability, Energy, and Resilience with AI	Lehigh University	Bethlehem	PA	18015-3093
Li, Jiang	Physics-Aware Guardrails for Real-Time Integrity Protection of AI-Driven Scientific Workflows	Old Dominion University Research Foundation	Norfolk	VA	23508-2561
Li, Qinghua	An Autonomous Framework for Adversarial Robustness and Resilience of AI Models in Power Grids	University of Arkansas	Fayetteville	AR	72701-3124
Li, Zepeng	Developing a Foundation Model to Unify Neutrinoless Double Beta Decay Search Technologies	University of Hawaii	Honolulu	HI	96822-2234
Li, Ziyang	Neuro-Symbolic Synthesis of Verified Computational Physics Code for Scientific Discovery	The Johns Hopkins University	Baltimore	MD	21218-2686
Lian, Jie	AI-Guided Manufacturing of High-Performance Heavy Rare-Earth-Free Magnets for Critical Materials Security (AIM-MAG)	Rensselaer Polytechnic Institute	Troy	NY	12180-3522
Ling, Haonan	Sensor-enabled AI digital twin for autonomous biomanufacturing: Real-time control and predictive scale-up via inline FEW-IR spectroscopy	The University of Central Florida Board of Trustees	Orlando	FL	32826-3281
Lipor, John	ARISE: AI Regionalization and Informed Siting for Enhanced Geothermal Systems	Portland State University	Portland	OR	97207-0751
Liu, Xiaorui	Agent-based Autonomous Adversarial Defense in Agentic AI Scientific Workflows	North Carolina State University	Raleigh	NC	27695-7514
Liu, Yang	SHIELD: Secure Human-in-the-loop Intelligence for Engineering and Licensing Deployment of Advanced Nuclear Systems	Texas A&M Engineering Experiment Station	College Station	TX	77842-3131
Lloyd, Karen	AI-Enabled Geobiological Critical Minerals Characterization and Recovery in Geothermal Systems	University of Southern California	Los Angeles	CA	90089-4304
Loomba, Dinesh	Learning Beyond Threshold: AI-Driven Signal Extraction for Rare-Event Searches	University of New Mexico	Albuquerque	NM	87131-0001
Louie, Steven	High-Fidelity AI-Ready Excited-State Materials Datasets and AI Models for Accelerated Discovery	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Lu, Dan	HydroORBIT: A Physics-Informed Multimodal AI Foundation Model for Coupled Surface-Groundwater Prediction in Energy-Critical Regions	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Ma, Eric	AI-Driven Inverse Design of Next-Generation 3D Quantum Processors	The Regents of University of California	Berkeley	CA	94710-1749
Ma, Pulong	A Spatial Generative Bayesian Computation Framework for Inferring Turbulence-Microphysics Interactions	Iowa State University of Science and Technology	AMES	IA	50011-2207
Majewski, Stephanie	MANGO - Monte Carlo Acceleration via Normalizing Flows Using GPU Optimization	University of Oregon	Eugene	OR	97403-5219
Mandal, Soumayajit	From Materials to Circuits: An AI-Native EDA Framework for Physics-Based Microelectronics Co-Design	Brookhaven National Laboratory (BNL)	Upton	NY	11973-5000
Mandelbaum, Rachel	A Unified Multimodal Data Service for AI-Driven Cosmology	Carnegie Mellon University	Pittsburgh	PA	15213-3890
Maniyanganam, Ahamed Irshad	A Multi-Agent AI Framework for Discovering Chemical Drivers of Selective Critical Metal Recovery from Complex Battery Waste	SLAC National Accelerator Laboratory	Stanford	CA	94025-7015
Mariscal, Derek	Facility-Level Agentic AI for Portable LaserNetUS Diagnostics and Interoperable Device Integration	Lawrence Livermore National Laboratory (LLNL)	Livemore	CA	94551-0808
Matchev, Konstantin	AI Agents for HEP Simulations and Analysis Operations	The University of Alabama	Tuscaloosa	AL	35487-0104
Mathuriya, Amrita	Polaris: Angstrom-node equivalent SRAM & logic with polar materials	Kepler Computing, Inc	San Jose	CA	95134-1907
Mba-Wright, Mark	A Universal AI-Enabled Framework for the Accelerated Design, Scale-Up, and Integration of Heterogeneous Bioprocesses	Iowa State University of Science and Technology	AMES	IA	50011-2207
McCoy, Anna	AI enabled optimization of quantum circuit design for realistic nuclear problems	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
McLaughlin, Gail	ENACT-AI: Enabling Nuclear Astrophysics Computational Transformation with AI.	North Carolina State University	Raleigh	NC	27695-7514

Miceli, Antonino	CMOS + X: AI-Enabled Cross-Domain Co-Design for Low-Temperature Electronics, Sensors and Computation	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
Mishra, Umakant	MIRACLE-AI: Molecular-to-Reservoir Integrated AI for Coupled Landscape and Earth-system Subsurface Intelligence	Sandia National Laboratories, California (SNL-CA)	Livermore	CA	94551-0969
Molaei, Reza	A Material Agnostic Physics-Aware, Interpretable AI Framework for Fatigue Life Prediction in TPMS Structures	Auburn University	Auburn	AL	36832-5888
Morgan, Nathan	VITA-SCALE: Vitrification AI for Scale-Bridging Prediction and Process Translation	Savannah River National Laboratory (SRNL)	Aiken	SC	29808-0001
Morrissey, Ember	IMAGINE-AI: Integrated Microbiome Analytic Generator of Interaction Network Evolution	West Virginia University Research Corporation	Morgantown	WV	26506-6845
Mosallaei, Hossein	Self-Driving Discovery and Co-Design of MXene Memristors for 3D Compute-in-Memory System	Northeastern University	Boston	MA	02115-5005
Mudunuru, Maruti	AI-agentic workflows to advance predictive understanding of fracture-dominated subsurface energy systems	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Mutlu, Ovunc	Subsurface Fracture Intelligence from Integrated Drilling Signals and Cuttings: A Physics-AI Framework for Ahead-of-Bit Characterization and Stimulation Design	New England Research, Inc.	White River Junction	VT	05001-9263
Naghavi, Hossein	Neuromorphic Terahertz Imaging via Analog Compute-in-Memory in AI-Driven Augmented Reality Hardware	University of Washington	Seattle	WA	98195-9472
Nakata, Rie	AI-enabled Multimodal Geophysical Monitoring of Fracture Evolution	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Neupane, Ghanashyam Hari	AI-Driven Multi-Scale Framework for Critical Mineral Discovery and Recovery from Subsurface and Unconventional Sources	Idaho National Laboratory (INL)	Idaho Falls	ID	83415-0001
Nghiem, Athena	OpenClaw-RT: Agentic AI for Accelerating In Situ Recovery of Critical Minerals	Board of Regents of the University of Wisconsin System, operating as University of Wisconsin-Madison	Madison	WI	53715-1218
Nicolae, Bogdan	SPOTTER-AI: Scientific Provenance-Oriented Threat Tracing and Attribution for Genesis Workflows	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803
Nicolosi, Gabriel	AI-Enabled Digital Twin Framework for Hot Rolling Operations in the U.S. Steel Industry	The Curators of the University of Missouri (Rolla) (Mo. Univ of Sci and Tech)	Rolla	MO	65409-6506
Nugent, Peter	Agentic HPC Pipeline Initiative (AHPI): AI-Driven Orchestration of DOE Lab Codes for Advanced Manufacturing	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Olbrich, Lorenz	Closed-Loop ML-Guided Electrode Development for High Energy Density Batteries	LiftOFF Technology, Inc.	Somerville	MA	02143-3260
Olsen, Bradley	Multi-agent Inverse Design of Block Polypeptoids Into Hierarchical Nanomaterials	Massachusetts Institute of Technology	Cambridge	MA	02139-4307
Olufowobi, Habeeb	Real-Time Trust and Resilience for AI-Driven EPICS Scientific Workflows	The University of Texas at Arlington	Arlington	TX	76019-0145
O'Malley, Daniel	Reinforcement Learning for Scientific Problem-to-Code Generation via Measurement-Based Reward Functions	Los Alamos National Laboratory (LANL)	Los Alamos	NM	87544-0600
O'Malley, Michelle	Precision Microbiome Engineering in Anaerobic Communities: from Deconstruction to Bioproduction	Regents of the University of California, Santa Barbara	Santa Barbara	CA	93106-2050
Opgenorth, Paul	Digital twins for cell free enzymatic cascades	Invizyne Technologies, Inc.	Monrovia	CA	91016-6356
Orphan, Victoria	AI-driven prediction of emerging microbial phenotypes in electrogenic consortia across scales	California Institute of Technology	Pasadena	CA	91125-0001
Ostroumov, Peter	Towards Self-Evolving, Physics-Informed Digital Twins of Ion Accelerators and Isotope Separators	Michigan State University	East Lansing	MI	48824-2600
Padhi, Amit	Probabilistic Inference of Subsurface Fracture Connectivity for Stimulation Control with Physics Informed AI	Halliburton Technology Partners LLC	Houston	TX	77032-3219
Park, David	Cross-Domain Scientific Reasoning through Composable Foundation Models	Brookhaven National Laboratory (BNL)	Upton	NY	11973-5000
Patel, Lekha	Upscaling Particle-resolved Aerosol-Cloud Microphysics with Generative Modeling	Sandia National Laboratories, New Mexico (SNL-NM)	Albuquerque	NM	87185-0100
Pedram, Massoud	POLARIS: Phase-logic Optimization via Learning and AI for Reduced-temperature Integrated Systems	University of Southern California	Los Angeles	CA	90089-4304
Peng, Jiayu	CLEAR-AI: Closed-Loop, Efficient, Adaptive, and Robust AI for Agentic Chemical Manufacturing	Research Foundation for the State University of New York d/b/a RFSUNY - University at Buffalo	Amherst	NY	14228-2567
Perez, Nicholas	Multimodal AI Finders for REE Deposits: Texas, the Colorado Mineral Belt, and the Southwest U.S.	Texas A&M University	College Station	TX	77845-4321

Pettee, Mariel	Principles of Foundation Models for Particle and Nuclear Physics	Board of Regents of the University of Wisconsin System, operating as University of Wisconsin-Madison	Madison	WI	53715-1218
Pinto, Ameet	AI-Enabled Single Cell Phenotyping to Advance Biomanufacturing	Georgia Tech Research Corporation	Atlanta	GA	30332-0420
Posen, Sam	AI/ML Resonance control for high-reliability, low-cost accelerator operations	Fermi National Accelerator Laboratory (FNAL)	Batavia	IL	60510-5011
Pouya, Hamid	GRID OPS AI: Scaling Grid Operations with Distributionally Robust, Physics Informed, Safe AI	Oklahoma State University	Stillwater	OK	74078-1020
Pressel, Kyle	EARL: Earth-Atmosphere Agentic Research and Learning - Physics-Constrained AI Closure Development for Cloud Microphysics and Turbulence	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Radel, Ross	AI-Guided Fuel Cycle Facility Optimization	SHINE Technologies	Janesville	WI	53546-9181
Rafiq, Tariq	REACT: Reactor Exhaust And Core Twin -- Multi-fidelity AI Predictions for Safe, Integrated, and High-Performance Control	Lehigh University	Bethlehem	PA	18015-3093
Rea, Cristina	CATALYST Core Accelerated Trajectories with Augmented Learning bY Sim-to-experiment Transfer	Massachusetts Institute of Technology	Cambridge	MA	02139-4307
Ren, Wei	An AI-Enabled Digital Twin Framework for Coupled Surface-Subsurface Hydrologic and Biogeochemical Simulations in the Northeast U.S. Coastal Region	University of Connecticut	Storrs	CT	06269-1133
Ren, Yihui	MARS: scaling Multi-Agent Reinforcement learning for Scientific hypothesis generation	Brookhaven National Laboratory (BNL)	Upton	NY	11973-5000
Rezaei, Fateme	Selective Recovery of Light and Heavy Rare-Earth Element Pairs via Functionalized Magnetic Sorbents with Induction-Assisted Regeneration	University of Miami Coral Gables	Coral Gables	FL	33146-2403
Ribet, Stephanie	Closing the Loop: AI-Accelerated Interstitial Engineering of Complex Concentrated Alloys	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Risko, Chad	From Edisonian Optimization to Predictive Molecular Design: AI-Driven Discovery and Engineering of Advanced Semiconductor Interfaces	University of Kentucky Research Foundation	Lexington	KY	40526-0001
Roland, Gunther	Multi-modal and multi-facility application of the FM4NPP foundation model: silicon trackers and electron colliders	Massachusetts Institute of Technology	Cambridge	MA	02139-4307
Rosso, Kevin	Physics-Informed Multi-Fidelity Neural Operators for Rapid Multi-Physics Simulation of Enhanced Geothermal Systems (MF-PINO-EGS)	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Rowberg, Andrew	AI-Advantage for Defect-property prediction in non-von Neumann computing Materials (A2D-Mat)	Lawrence Livermore National Laboratory (LLNL)	Livermore	CA	94551-0808
Russo, Vincent	AutoQEC: AI-Driven Discovery and Optimization of Quantum Error Correction Codes	Unitary Fund	San Francisco	CA	94111-2585
Salas-Fernandez, Maria	AI-enabled multiscale discovery of genotype-to-phenotype control points for lodging-resistant bioenergy sorghum	Iowa State University of Science and Technology	AMES	IA	50011-2207
Saldanha, Richard	Low-latency Embedded AI for Physics - From Waveforms to Discovery	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Saleska, Scott	Transforming subsurface prediction with an autonomous, multi-agent AI workflow for multi-scale coupled bio-hydrogeochemical modeling	Arizona Board of Regents, The University of Arizona	Tucson	AZ	85721-0158
Salman, Emre	AI-Driven Autonomous and Self-Healing Readout Electronics for Radiation-Tolerant HEP Detectors	Research Foundation for the State University of New York d/b/a RFSUNY - Stony Brook University	Stony Brook	NY	11794-3362
Sanchez, Mayly	Accelerating DUNE Physics with AI Discovery of Neutrino Interaction Uncertainties	Florida State University	Tallahassee	FL	32306-4166
Santiesteban, Nathaly	A.I. Era Spin Physics of Quantum Systems: Real-Time Feedback and Neural Network Optimization of Polarized Targets	University of New Hampshire	Durham	NH	03824-3585
Sargent, Edward	Agentic AI-Driven Co-Optimization of a Tandem Electro-Thermocatalytic Route to Energy-Atom-Efficient Polyethylene Manufacturing from Waste Carbon	Northwestern University	Chicago	IL	60611-4579
Sarkar, Soumik	DAISY: Decentralized Agentic Intelligence System for Scientific Inquiry	Iowa State University of Science and Technology	AMES	IA	50011-2207
Schneider, Michael	Dynamical Learning for Fast, Uncertainty-Aware Cosmological Inference from Rubin Data	Lawrence Livermore National Laboratory (LLNL)	Livemore	CA	94551-0808
Scholberg, Kate	AI-Accelerated Supernova Burst Response with DUNE	Duke University	Durham	NC	27705-4010
Schuckers, Stephanie	GATEKEEPER: AI-Mediated Cybersecure Air-Gapped Enclaves for High-Throughput Science	University of North Carolina at Charlotte	Charlotte	NC	28223-0001
Sedlacek, Arthur	An Automated, Multimodal-AI-Enabled Cloud Chamber for Constraining Cloud Microphysical Processes in Earth System Models	Brookhaven National Laboratory (BNL)	Upton	NY	11973-5000
Seeman, Mikhael	RAIN: Rigorous AI and Information Network for Surface-Subsurface Water System Coupling	EnviTrace LLC	Santa Fe	NM	87501-1050

Sengupta, Manajit	Turbulence-Microphysics-Land Nexus (TML-Nexus): Unlocking Predictive Power for the Coupled Water Cycle using Weather Foundation Models	National Laboratory of the Rockies (NLR)	Golden	CO	80401-3111
Shafer, Jenifer	AI-driven co-optimization of closed fuel cycles: balancing economics, security, and waste	Colorado School of Mines	Golden	CO	80401-1887
Shainline, Jeffrey	Highly connected superconducting optoelectronic neuromorphic systems for scalable AI	Great Sky Inc	BOULDER	CO	80301-2978
Shaw, Raymond	AI-accelerated exploration of droplet collision- coalescence using observation-constrained, multiscale modeling of a turbulent-convection cloud chamber	Michigan Technological University	Houghton	MI	49931-1295
Shcherbakov, Maxim	Causal AI for Deterministic Quantum Emitters from Atoms to Photonic Systems	Regents of the University of California, Irvine	Irvine	CA	92697-7600
Shen, Han-Wei	ROBIN-NET: ROBust BIdirectional PINNs for Accelerated Complex Flow Modeling and Discovery	The Ohio State University	Columbus	OH	43210-1016
Shen, Kyle	SPECTRA: SPECTRAL PREDICTION AND ELECTRONIC CHARACTERIZATION THROUGH RAPID AI	Cornell University	Ithaca	NY	14850-2820
Shi, Yuan	Empowering quantum simulations of nonlinear plasma dynamics using quantum machine learning and agentic AI	The Regents of the University of Colorado d/b/a University of Colorado	Boulder	CO	80303-1058
Shih, Kai	AI-Enabled Digital Twin for Near-Real-Time Optimization and Decision Support of Fusion NBI Systems	Realta Fusion Inc.	Madison	WI	53717-2314
Shipman, Galen	ArchEvolve --An Evolutionary Agentic AI System for Deep Co-Design	Los Alamos National Laboratory (LANL)	Los Alamos	NM	87544-0600
Shiraiwa, Syun'ichi	AI-4-Gyrotron: accelerating ECH technology delivery for nuclear fusion	Princeton Plasma Physics Laboratory (PPPL)	Princeton	NJ	08542-0451
Shukla, Ankita	Data to Decision: An Agentic AI Framework for Safety Case Development and Licensing of Repositories	Board of Regents, obo, Nevada System of Higher Education (NSHE) - University of Nevada, Reno	Reno	NV	89557-0240
Simpson, Raspberry	AI-Enabled Data Pipelines for High-Precision Additive Manufacturing of Fusion Targets	Lawrence Livermore National Laboratory (LLNL)	Livermore	CA	94551-0808
Sinclair, Matt	Using AI to Standardize and Systematically Advance HPC Workloads	Board of Regents of the University of Wisconsin System, operating as University of Wisconsin- Madison	Madison	WI	53715-1218
Singh, Hansi	DL4MCS: Deep Learning Methods to Enhance Subseasonal Predictions of Mesoscale Convective Systems by Physics-based Systems	Planette Analytics Inc.	Seattle	WA	98101-1377
Siwach, Pooja	ORAQL: Orchestration of AI for Quantum Leadership	Arizona Board of Regents, The University of Arizona	Tucson	AZ	85721-0158
Smith, David	High-throughput edge AI for real-time, multi-task inference on high-bandwidth plasma fluctuation diagnostics: a transformative enabling technology for fusion energy	Board of Regents of the University of Wisconsin System, operating as University of Wisconsin- Madison	Madison	WI	53715-1218
Smith, Jeff	Scalable Agentic Grid Engine for Distribution Systems (SAGE-DS)	Electric Power Research Institute	Palo Alto	CA	94304-1395
Snurr, Randall	AI-led discovery of materials for lithium isotope separation	Northwestern University	Chicago	IL	60611-4579
Soltanian, Mohamad	AI-Accelerated Discovery of Multiscale Subsurface Architecture and Coupled Hydrobiogeochemical Processes	University of Cincinnati	Cincinnati	OH	45221-0222
Soltz, Ron	Multimodal Enhancements to the Foundation Model for Nuclear and Particle Physics (FM4NPP)	Lawrence Livermore National Laboratory (LLNL)	Livermore	CA	94551-0808
Spearot, Douglas	Closed-Loop, Feedback-Driven Design of Metastable Metallic Alloys with Predictable Strength-Toughness via a Scalable, Agentic Multimodal Diffraction-Chemistry Framework	University of Florida	Gainesville	FL	32611-5500
Sprunger, Phillip	AI for NSLS-II/IIU and CAMD: from early design to high- performance operations	Louisiana State University and A&M College	Baton Rouge	LA	70803-0001
Steeffel, Carl	A Novel AI Workflow for Critical Minerals in Heterogeneous Geosystems	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Sufian, Raza	AI-Accelerated Non-Abelian Gauge Dynamics on Quantum Hardware	The Regents of New Mexico State University (NMSU, Las Cruces)	Las Cruces	NM	88003-8002
Sulman, Benjamin	AI-enabled subsurface biogeochemical modeling	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Sun, Jianwei	Physics-Enhanced AI Framework for Discovering New Classes of Unconventional Superconductors	Administrators of the Tulane Educational Fund	New Orleans	LA	70118-5665
Suyderhoud, Peter	Prometheus	Idaho National Laboratory (INL)	Idaho Falls	ID	83415-0001
Tallent, Nathan	Automatic Performance Portability for Distributed Scientific Workflows on the Genesis Mission Platform	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793

Tchelepi, Hamdi	Composable Agent Framework for Expert Fracture Design and Uncertainty Quantification	Board of Trustees of the Leland Stanford Junior University	Stanford	CA	94063-8445
Tedeschi, David	Expedited Discovery by Leveraging Agentic Workflows for the Mu2e Charged Lepton Flavor Violation Search	University of South Carolina	Columbia	SC	29208-0001
Temme, Kristan	AI-Assisted Application Search and Algorithmic-Level Optimization for Quantum Algorithms	IBM TJ Watson Research Center	Yorktown Heights	NY	10598-0218
Tirupatikumara, Soundar	Neurosymbolic Intelligence for Next Generation Smart Manufacturing	The Pennsylvania State University	University Park	PA	16802-7000
Traversy, Michael	AI-Enabled Process Optimization for Multi-Feed Rare Earth Separation	Aclara Technologies Inc.	Bethesda	MD	20817-6523
Ulmer, Keith	AIDA-Scout: AI for Inclusive Real-Time Anomaly Detection and Accelerated Discovery in the CMS Level-1 Scouting System	The Regents of the University of Colorado d/b/a University of Colorado	Boulder	CO	80303-1058
Ulrich, Craig	GeoTrace: From Raster to Reality-AI-Assisted 3D Modelling and Subsurface Fatal Flaw Analysis for Nuclear Waste Disposal Sites	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Ushizima, Daniela	HERALD: High-throughput ECI Review and Agentic Legacy Document processing	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Van Roekel, Luke	From improved Coupled Ocean-Ice States to Improved Water Prediction: A Generative AI Approach	Los Alamos National Laboratory (LANL)	Los Alamos	NM	87544-0600
Varadharajan, Charuleka	A Foundational Generative AI Framework to Advance Water-Energy Security	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Vega, Daniel	Self-Optimizing Digital Twin for Compact Laser Plasma Accelerator Driven Light Sources	Inversion Semiconductor Inc.	Berkeley	CA	94702-2495
Vigil-Fowler, Derek	Agentic-AI driven synthesis of fuel cell catalysts though low-temperature, controlled graphitization and iron incorporation	National Laboratory of the Rockies (NLR)	Golden	CO	80401-3111
Vijayakumar, Ganesh	AI-enabled Flow-Induced Vibration modeling	National Laboratory of the Rockies (NLR)	Golden	CO	80401-3111
Viswanathan, Hari	A Physics-Informed Multimodal Foundation Model for Fracture Evolution in the Upper Crust	Los Alamos National Laboratory (LANL)	Los Alamos	NM	87544-0600
Volya, Alexander	Quantum-Enhanced Evaluation of Nuclear Reaction Cross Sections in R-Matrix Theory	Florida State University	Tallahassee	FL	32306-4166
Vrajitoarea, Andrei	AI-driven Pulse-level Optimal Control of Many-body Quantum Eigensolvers	New York University	New York	NY	10012-2331
Vuran, Mehmet	SwarmSlicer: AI-Driven Design of Sensor-Network-GPU Slicing in 6G Wireless Networks for Distributed Autonomous Cyber-physical Testbeds	The Board of Regents, University of Nebraska for the University of Nebraska-Lincoln	Lincoln	NE	68583-0861
Wang, Dali	Integrated AI-Driven Weeks-to-Years Prediction of Water for Energy in the Tennessee Valley Authority Region	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Wang, Jian-Xun	Differentiable Physics-Integrated Generative Modeling for Complex Turbulent Flows in DOE Energy Systems	Cornell University	Ithaca	NY	14850-2820
Wang, Jiaze	Bridging Genomics and Reactive Transport Models with AI for Subsurface Prediction	University of Maine	Orono	ME	04469-5717
Wang, Jinzhen	CASCADE: Composable Assurance for AI-enabled Scientific Computing with Agentic Error Governance	University of North Carolina at Charlotte	Charlotte	NC	28223-0001
Wheeler, Travis	Agentic AI-Driven Discovery of Enzyme Conformational Dynamics in Microbial Systems	Arizona Board of Regents, The University of Arizona	Tucson	AZ	85721-0158
Wies, Richard	AURORA-AI: Alaska Utility Resilience & Optimization using Real-time AI	University of Alaska Fairbanks	Fairbanks	AK	99775-7880
Wilson, Justin	HARVEST-CMM: Hybrid AI-driven chelator-protein co-design for Robust Extraction and Selective separation of Critical Mineral Materials	Regents of the University of California, Santa Barbara	Santa Barbara	CA	93106-2050
Wilson, Paul	Stellarator blanket optimization with differentiable Monte Carlo neutronics	Board of Regents of the University of Wisconsin System, operating as University of Wisconsin-Madison	Madison	WI	53715-1218
Wong, Daniel	Learning to Decode at Hardware Speed: Distilled Intelligence for Quantum Error Correction	The Regents of the University of California, Riverside	Riverside	CA	92521-0217
Xie, Wei	Agentic AI for Real-time Expedited Discovery from High-Complexity EIC Data Streams	Purdue University	West Lafayette	IN	47906-1332
Xu, Guangping	AI framework for Realtime Critical Mineral Resources Mapping and Characterization While Drilling	Sandia National Laboratories, New Mexico (SNL-NM)	Albuquerque	NM	87185-0100
Yadav, Monika	AI-Enabled Digital Twin for Scalable Injector Optimization and Control	Old Dominion University Research Foundation	Norfolk	VA	23508-2561
Yan, Eugene	Multi-Fidelity AI Foundation Model for Coupled Surface-Groundwater Predictions of Water Availability and Flood Hazards Across CONUS	Argonne National Laboratory (ANL)	Lemont	IL	60439-4803

Yang, Da	GENESIS-AR: GENERative models and New observations for Improved S2S prediction of Atmospheric Rivers	Board of Trustees of the Leland Stanford Junior University	Stanford	CA	94063-8445
Yang, Ying	SMART-AI for Scale-Up and Material Reliability Translation of Advanced Structural Alloys for Fusion Applications	Oak Ridge National Laboratory (ORNL)	Oak Ridge	TN	37831-6118
Ye, Yinyin	PHOCUS: PHage-host interaction programming for anaerobic microBiome Control Using AI-guided deSign	Research Foundation for the State University of New York d/b/a RFSUNY - University at Buffalo	Amherst	NY	14228-2567
Yeom, Jae-Seung	Characterizing the Performance of HPC Workloads from Binary Executables	Lawrence Livermore National Laboratory (LLNL)	Livermore	CA	94551-0808
Yoo, Jinwoong	An Agentic AI Framework for Seasonal-to-Interannual U.S. Water Prediction: Coupling Large AI-based Prediction Models and Wavelet Diffusion with E3SM	University of Maryland	College Park	MD	20742-5141
Zakutayev, Andriy	Autonomous Identification of Semiconductor Charge Transport Physics	National Laboratory of the Rockies (NLR)	Golden	CO	80401-3111
Zhang, David	Scalable Heterogeneous Federated Learning Framework (SHFL)	SRI International	Menlo Park	CA	94025-3453
Zhang, Fan	AI Driven Workflow with Cyber Assured Digital Twin for Autonomous Operations in SMRs and Microreactors	Georgia Tech Research Corporation	Atlanta	GA	30332-0420
Zhang, Jielun	Adversarial Robustness Framework for AI Models in Battery Management and Energy Science Workflows	University of North Dakota	Grand Forks	ND	58202-7306
Zhang, Shixuan	Drift-Aware Initialization of Coupled Earth System Models for Scalable Subseasonal-to-Seasonal Prediction Using Agentic AI	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Zhang, Shuai	AI-driven co-design of protein-van der Waals hybrids for high-performance microelectronics	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793
Zhang, Youtao	Accelerating Measurement-Based Quantum Simulation Software Design with Artificial Intelligence	University of Pittsburgh	Pittsburgh	PA	15213-2303
Zhang, Yunyan	Scalable Twin for Intelligent Turbulence and Cloud Heuristics (STITCH)	Lawrence Livermore National Laboratory (LLNL)	Livermore	CA	94551-0808
Zhao, Huimin	Foundation Models for Metabolic Engineering	Board of Trustees of the University of Illinois	Champaign	IL	61820-7406
Zheng, Liange	An AI-Driven Platform for HLW Repository Design and Analysis with Digital Twins, GIS Data Integration, and Surrogate Models	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Zhou, Keren	An End-to-End AI Framework for Performance Prediction and Optimization in HPC Applications	George Mason University	Fairfax	VA	22030-4422
Zhu, Liuwan	STRATOS: Security and Trust Runtime Architecture for Time-critical Operational Science	University of Hawaii	Honolulu	HI	96822-2234
Zhu, Qing	WISE: Water Intelligence System for Energy infrastructures	Lawrence Berkeley National Laboratory (LBNL)	Berkeley	CA	94720-8099
Zia, Roseanna	Toward a U.S. Institute for Cell Design: AI-Driven Computer-Ready Synthetic Cells with Quantum Integration	The Curators of the University of Missouri	Columbia	MO	65201-0001
Zucker, Jeremy	AI-4- Algae: Unleashing Domestic Production of Algal Biomass through Physics-Informed Machine Learning Bioreactors	Pacific Northwest National Laboratory (PNNL)	Richland	WA	99352-1793