



U.S. Department of
ENERGY

2025 DEMO SCHEDULE



June 2

- 11:00 AM** **RHAAPsody: AI-Enabled Automation of Materials Synthesis**
Dan Schreiber (PNNL)
- 11:45 AM** **AI-Driven CAD Defeaturing & Idealization for Simulation Setup**
Steve Owen (SNL)
- 1:00 PM** **Ascribe Virtual Reality: AI for Immersive Browsing**
Helen Cademartori and Ana Kupresanin (LBL)
- 2:00 PM** **Inertial Fusion Capsule Design Assistant**
Charles Jekel (LLNL)
- 3:15 PM** **Scaling LLMs to Understand Protein - Protein Interactions**
Shilpika (ANL)

June 3

- 10:00 AM** **Red Teaming AI: Tools for AI Vulnerability Assessment**
Amir Sadovnik (ORNL)
- 11:15 AM** **Semantic Search for Issue Tracking with Particle Accelerators**
Hayden Hoschouer (Fermilab)
- 12:15 PM** **AI-Based Structural Design of Peptides for Metal Binding**
Ratul Chowdhury (AMES)
- 1:15 PM** **Scaling LLMs to Understand Protein - Protein Interactions**
Shilpika (ANL)
- 2:15 PM** **ACCORD: A Chemistry Catalysis AI Agent**
Robert Rallo (PNNL)
- 3:15 PM** **Deploying Biomedical RAG Pipelines on Frontier**
Veronica Melesse Vergara (ORNL)
- 4:15 PM** **Ascribe Virtual Reality: AI for Immersive Browsing**
Helen Cademartori and Ana Kupresanin (LBL)

June 4

- 10:00 AM** **Scaling LLMs to Understand Protein - Protein Interactions**
Shilpika (ANL)
- 11:00 AM** **AI and Quantum: Building A Mutually Beneficial Relationship**
Prasanna Date and Kathleen Hamilton (ORNL)
- 12:00 PM** **CelloAI: LLM-based Code Assistant**
Mohammad Atif (BNL)
- 12:30 PM** **Leveraging GenAI to Automate CAD Modeling and Meshing**
Nathan Brown (Sandia)
- 2:30 PM** **Graph Foundation Models for Atomistic Materials Science**
Max Lupo Passini (ORNL)

Argonne
NATIONAL LABORATORY

ORNL
NATIONAL RENEWABLE ENERGY LABORATORY

Lawrence Livermore
National Laboratory

OAK RIDGE
National Laboratory

Brookhaven
National Laboratory

Pacific Northwest
NATIONAL LABORATORY

NREL
NATIONAL ENERGY
TECHNOLOGY
LABORATORY

INL
Idaho National Laboratory

PPPL

AMES
NATIONAL LABORATORY

Sandia
National
Laboratories

BERKELEY LAB

Los Alamos
NATIONAL LABORATORY

Jefferson Lab

Fermilab

SLAC

NATIONAL
ACCELERATOR
LABORATORY

Savannah River
National Laboratory



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2025 SPEAKER SCHEDULE



June 2

10:30 AM	AI-Based Design of Peptides for Recovery of Critical Metals Ratul Chowdhury (AMES)
11:15 AM	Building Foundation Models for Nuclear and Particle Physics Yihui (Ray) Ren (BNL)
12:15 PM	AI for Translational Science: From Lab to Market Hilary Egan (NREL)
1:00 PM	Accelerating High Energy Science with AI George Fleming (Fermilab)
2:45 PM	Enhancing User Facility Science through Automation and ML Mary Scott (LBL)
3:30 PM	AI for Fusion Shantenu Jha (PPPL)
4:15 PM	AI for Monitoring Complex Environmental & Physical Systems Thomas Danielson (SRNL)

June 3

10:45 AM	AuroraGPT: Scaling AI for Scientific Discovery Ian Foster (ANL)
11:45 AM	Building Efficient AI-Driven Scientific Labs of the Future Ben Mintz and Prasanna Balaprakash (ORNL)
12:45 PM	ACCORD: AI Co-Scientist for Chemistry Catalysis Research Robert Rallo (PNNL)
1:45 PM	Manufacturing's New Senses: AI and 3D Printing Anthony Garland (SNL)
2:45 PM	AI-Driven Digital Engineering for Next-Gen Energy Systems Maria Eduarda Montezzo Coelho (INL)
3:45 PM	AI for National Security Mike Lang (LANL)

June 4

10:45 AM	Exascale Distillation Workflows for Protein Structure Prediction Brian Van Essen and Nikoli Dryden (LLNL)
11:30 AM	Exploring the Cosmic Frontier with AI Adam Bolton (SLAC)
12:15 PM	Accelerating Critical Mineral Discovery through AI Kelly Rose (NETL)
12:45 PM	Advancing Scientific Discovery at Jefferson Lab using AI Malachi Schram (JLAB)
2:30 PM	Artificial Intelligence for Nuclear Energy Applications Jason Hales (Office of Nuclear Energy)