

MDS³ WINTER MEETING AGENDA

January 14 – 15th 2026

ThinkBox 1st Floor, Case Western Reserve University

Wednesday, January 14th

9:00 – 9:30	Breakfast	Lobby
9:30 – 9:50	Opening Remarks and State of the Center	Auditorium
9:50 – 10:10	LLNL Data Governance – Asit Sharma	Auditorium
10:20 – 12:40	Morning Technical Sessions	Various
10:20 – 11:20	Introductory Track <i>Intro to MDS³ – AM. Aging, and Lifetime</i> <i>Ontologies for FAIR, Learning and Semantic Reasoning</i> <i>Overview of CRADLE & Automated Workflows</i>	Meeting Room A
10:20 – 11:20	Aging & Lifetime Track <i>Materials Science Foundation Models and Graphs: From Task GNNs to Graph Foundation Models</i> <i>Lifetime & Degradation of PMMA using Semantic Data Management of a Historical Study</i> <i>Energetic Materials: Materials Discovery using Graph Neural Networks & Semantic Data Management</i> <i>Group Discussion</i>	Meeting Room B
11:40 – 12:40	AI for Materials Data Science <i>Formulation Automation for Scintillators and Silicone</i> <i>Advanced Manufacturing Defect Detection</i> <i>LLM-enhanced Hierarchical Graph Attention Networks for Molecular Solubility Prediction</i>	Meeting Room A
11:40 – 12:40	Semantic Data Management (SDM) for Synchrotron Science <i>Synchrotron Science Overview</i> <i>Semantic Data Management for Synchrotron Science</i> <i>Beamlines & Automated Pipelines</i> <i>Group Discussion</i>	Meeting Room B
12:40 – 1:40	Lunch	Lobby
1:40 – 3:10	Facility Tours	Various
3:10 – 4:10	Afternoon Technical Sessions	Various
3:10 – 4:10	MDS-Onto and Knowledge Graph Demos <i>Open Source Packages for Semantic Data Management of Historical, Sparse & Massive Materials Datasets:</i> <i>FAIRLinked & Onto check</i> <i>CEMENTO and ASPHALTO Demo</i> <i>GeoOutageKG: A Multimodal Geospatiotemporal Knowledge Graph for Multiresolution Power Outage Analysis</i>	Meeting Room A
3:10 – 4:10	MDS3 Data Segmentation for Qualification Topics <i>Material Segmentation Model Garden & Contextualized Analysis Pipeline</i> <i>Demo of Counterfactual</i> <i>Semantic Segmentation for Scanning Electron Microscopy Images of Optoelectronic Device Metallization</i> <i>Group Discussion</i>	Meeting Room B
4:10 – 6:00	Poster Reception	Auditorium

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9:30 – 10:00	Breakfast	Lobby
10:00 – 10:10	Opening Remarks and Recap of Day 1	Auditorium
10:10 – 11:10	Breakout Discussion	Various
	Advanced Manufacturing Discussion	
	Aging & Lifetime Discussion	
	Semantic Material Science Track	
11:10 – 12:10	Lunch	Lobby
12:10 – 1:40	Additional Tours, Visit to Faculty Research Groups	Various