DuraMAT Fall Workshop (draft)

27-28 October 2026

National Museum of Nuclear Science and History

601 Eubank Blvd SE, Albuquerque, NM 87123

Tuesday, October 27

0800 – 0810 Welcome and Purpose, Cliff Hansen (SNL)

0810 – 0945 Technologies

- Todd Karin (PVEL) - Stress tests for N-type modules
- Dana Kern / Peter Hacke (NLR) - STOKED: Spectral Tuning and Optimized Kinetics via Energy Down Conversion in PV Packaging
- Elizabeth Palmiotti (NLR) - Let's Not R-EPE-at Our Mistakes
- Jessica Rimsza - EPIC-PV: Efficient Production of Ion-ExChanged glasses for PV reliability

945 – 1000 Break

1000 – 1200 Risks from the Environment

- James Hartley (SNL) - A computationally derived framework for predicting probability of PV module glass breakage by hail impact
- Ethan Young (NLR) - A Fast, Accurate Prediction for System-Wide Damage Due to Dynamic Wind Loading
- Dirk Jordan (NLR) - Multiple Hail Impact Testing
- Colleen O'Brien (UL) - Dynamic mechanical compatibility of trackers and PV modules
- Jarett Zuboy (NLR) - Tech Scouting Report

1200 – 1300 Lunch and Networking

1300 – 1445 AI, Data and Modeling

- Anubhav Jain (LBL) - Mapping PV degradation mechanisms and field performance by leveraging large language models
- Anubhav Jain (LBL) - An Autonomous Assistant for End-to-End Degradation Analysis
- Farhan Rahman - Electrical-Thermal Modeling of Photovoltaic Module Connectors to Enable Thermo-Mechanical Coupling and Failure Mode Indication
- Robert White (NLR) – DuraMAT Data Infrastructure

1445 – 1500 Break

1500 – 1700 Free to visit the Museum

DECS Dinner (TBD)

Wednesday, October 28

0800 – 1000 Effects on Module Performance and Longevity

- Jessica Rimsza (SNL) - Fracture Risk of PV Modules via Reflective Measurement of Surface Stresses
- Viral Parikh (EPRI) - Effect of Cell Cracks on Module Power Loss and Degradation: Modern Module Architectures
- TBD (NLR) - Modeling the exposure of PV components on the module back side
- Peter Hacke / Dana Kern (NLR) - Accelerated Stress Testing to Deconvolute Simultaneous-But-Distinct Degradation Pathways under UV Illumination

1000 – 1015 Break

1015 – 1145 Session theme TBD

- Dirk Jordan (NLR) - 50-Year Module Report
- TBD
- TBD
- TBD

1145 – 1200 Closing remarks

1200 – 1300 Lunch

1300 – 1430 Industry Advisory Board Meeting

1530 – 1700 ARRAY Technologies New Manufacturing Facility Tour

ARRAY Technologies – Atrisco Facility, 701 Atrisco Vista Blvd NW, Albuquerque, NM 87120, U.S.A.

RSVP required no later than 15 October 2026, to Cliff Hansen at cwhanse@sandia.gov

Please carpool. Long pants and closed-toed shoes are required.