

2025 NSDF All Hands Meeting Monday: 12:00 PM - 17:00 PM Tuesday: 08:00 AM - 17:00 PM Wednesday: 08:00 AM - 13:00 PM

| Monday, 5<br>May |       | Event  | Name   |  |  |  |
|------------------|-------|--|--|--|--|--|
| 12:00            | 13:30 | Lunch  |  |  |  |  |
| 13:30            | 14:00 | Welcome from Valerio, Michela, and Christine   |  |  |  |  |
| 14:00            | 15:00 | Demos  |  |  |  |  |
| ·                |       | Recent Advancements with NSDF Use Cases:<br>Collaborations with Oak Ridge National<br>Laboratory               | Jack Marquez and Kin Hong<br>NG, University of Tennessee<br>Knoxville          |  |  |  |
|                  |       | Recent Advancements with NSDF Use Cases:<br>Collaborations with NASA and CHESS                                 | Aashish Panta, University of Utah  |  |  |  |
| 15:00 15:30      |       | Coffee Break   |  |  |  |  |
|                  |       | Session 1: Platforms (CI)  | Session Chair: Michela<br>Taufer, University of<br>Tennessee Knoxville         |  |  |  |
| 15:30            | 15:50 | Transforming Scientific Discovery with AI/ML and Globus  | Kyle Chard, ANL and University of Chicago                                      |  |  |  |
| 15:50            | 16:10 | Open Data Science Data Federation and Pelican Platform   | Fabio Andrijauskas, University of California San Diego                         |  |  |  |
| 16:10            | 16:30 | DataFed: Data Navigation and Management for Virtual Research Environments                                      | Patrick Widener, Oak Ridge<br>National Laboratory                              |  |  |  |
| 16:30            | 16:50 | Addressing I/O Challenges in Large-Scale Parallel Ensemble Training: Implementation-Independent Optimizations" | Wei Zhang, Lawrence Berkeley<br>National Laboratory                            |  |  |  |
| 16:50            | 17:00 | Q&A  |  |  |  |  |
| Tueso<br>Ma      |       | Event  | Name   |  |  |  |
| 8:00             | 9:00  | Breakfast  |  |  |  |  |
| 9:00             | 10:00 | Keynote: Is Your Data Handling Trustworthy?  | Miron Livy, University of Wisconsin  |  |  |  |
| 10:00            | 10:30 | Coffee Break   |  |  |  |  |
|                  |       | Invited Talks  | Session Chair: Christine<br>Kirkpatrick, University of<br>California San Diego |  |  |  |
| 10:30            | 11:15 | An Integrated Research Data Commons and On-Premise Cloud Infrastructure for Earth Science at NSF NCAR          | Thomas Hauser, NCAR  |  |  |  |

| 11:15 | 12:00 | Virtual NSF Session  | Katie Antypas   |  |  |
|-------|-------|--|---|--|--|
| 12:00 | 12:10 | Group Photo  |   |  |  |
| 12:10 | 13:30 | Lunch & Posters  |   |  |  |
|       |       | Bridging the Digital Gap: A Data-Driven Curriculum to Empower Senior Smart Device Adoption                     | ce<br>Ryen Smith, Dillard University                              |  |  |
|       |       | Bridging Humanities and AI through Interdisciplinary Collaboration   | Michael Sutherlin, University of Tennessee Knoxville              |  |  |
|       |       | Understanding the Characteristics of African American Ph.D. Earners Using UMETRICS                             |   |  |  |
|       |       | Feature-driven Parameter Space Exploration Simulation Ensembles  | on of Zhimin Li, University of Vanderbilt                         |  |  |
|       |       | NSDF and Public Outreach   | Jack Marquez, University of Tennessee Knoxville                   |  |  |
|       |       | NSDF and Oak Ridge Collaboration   | Kin Hong NG, University of Tennessee Knoxville                    |  |  |
|       |       | NSDF and User Communities  | Steve Petruzza, Utah State University                             |  |  |
|       |       | NSDF and FAIR  | Christine Kirkpatrick, University of California San Diego         |  |  |
|       |       | Session 2: NSDF in the Physical Sciences   | Session Chair: Steve<br>Petruzza, Utah State<br>University        |  |  |
| 13:30 | 13:50 | Neutron Powder Diffraction Experiment Ste in collaboration with NSDF   | ering Marshall Mcdonnell, Oak Ridge<br>National Laboratory        |  |  |
| 13:50 | 14:10 | Revealing Dynamics of Pathogen Invasion<br>3D Volumetric Fluorescence Data from Latt<br>Light Sheet Microscopy | •   |  |  |
| 14:10 | 14:30 | Critical Advances in Dark Matter Physics th Machine-Learning-Ready Data  | rough Amy Roberts, University of Colorado Denver                  |  |  |
| 14:30 | 14:50 | Leveraging NSDF Tools for Visualization of Data Sets at CHESS  | Kate Shanks, Cornell High Large Energy Synchrotron Source (CHESS) |  |  |
| 14:50 | 15:00 | Q&A  | ·   |  |  |
| 15:00 | 15:30 | Coffee Break   |   |  |  |
| ·     |       | Session 3: Visualizations and Data   | Session Chair: Amy Gooch,<br>University of Utah                   |  |  |
| 15:30 | 15:50 | From Sensors to Tensors  | Alexander Szalay, John<br>Hopkins University                      |  |  |
| 15:50 | 16:10 | Applying the FAIR Principles to Computatio Workflows   | nal Sean Wilkinson, Oak Ridge<br>National Laboratory              |  |  |
|       |       |  |   |  |  |

| 16:10 | 16:30 |  | Bridging the Gap: Scalable Data Management for Scientific Workflows and IOwarp and HSDS | Scott Breitenfeld, HDF Group                              |
|-------|-------|--|---|---|
| 16:30 | 16:50 |  | FAIR Data   | Christine Kirkpatrick, University of California San Diego |
| 16:50 | 17:00 |  | Q&A   |   |
| 18:30 | ~     | Dinner at Aqua Mare<br>2282 Carmel Valley Rd., Del Mar, CA 92014 |   |   |

| Wednesday, 7<br>May |       | Event   | Name  |  |
|---------------------|-------|---|---|--|
| 8:00                | 9:00  | Breakfast   |   |  |
| 9:00                | 10:00 | Keynote: Information Ecosystems from Sensor to NSDF   | Ryan Coffee, Stanford Linear<br>Accelerator Center (SLAC)                 |  |
| 10:00               | 10:30 | Coffee Break  |   |  |
|                     |       | Session 5: Workflows  | Session Chair: Michael<br>Sutherlin, University of<br>Tennessee Knoxville |  |
| 10:30               | 10:50 | Enabling Fast and Accurate Crowdsourced Annotation for Elevation-Aware Flood Extent Mapping | Steve Petruzza, Utah State<br>University                                  |  |
| 10:50               | 11:10 | Opportunities to Collaborate with the National Data Platform                                | Ilkay Altintas, University of California San Diego                        |  |
| 11:10               | 11:30 | Mentoring through Imposter Syndrome   | Jay Lofstead, Sandia National Laboratories                                |  |
| 11:30               | 11:50 | Enabling Storage, Sharing and Archiving of Petascale Data                                   | Amy Gooch, University of Utah   |  |
| 11:50               | 12:00 | Q&A   |   |  |
| 12:00               | 13:00 | Lunch (lunch boxes)   |   |  |



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