

Thurs. Nov. 9		
8:30 – 8:40	WELCOME AND OPENING REMARKS	
8:40 – 9:40	KEYNOTE: Models, Data, and Wisdom: How do we know when to trust a climate model?	<i>Steve Easterbrook</i> School of the Environment and Department of Computer Science, University of Toronto
9:40 – 10:00	TALK: Component Level Regression Testing in a Hierarchical Architecture	<i>Thomas Clune</i> NASA Goddard Space Flight Center
10:00 – 10:20	TALK: High Performance Climate and Weather Benchmark (HPCW): a framework for reproducible benchmarks of ESM models and mini-applications.	<i>David Guibert*</i> Center for Excellence in Performance Programming, Eviden
10:20 – 10:50	BREAK	coffee, tea, light snacks
10:50 – 11:10	TALK: Correctness Challenges in HPC and ML	<i>Harvey Dam, Ganesh Gopalakrishnan</i> Department of Computer Science, University of Utah
11:10 – 11:30	TALK: Reliable and reproducible Earth System Model data analysis with ESMValTool	<i>Valeriu Predoi*</i> NCAS-CMS, University of Reading
11:30 – 11:50	TALK: Testing approach for porting legacy 4-mode Modal Aerosol Model (MAM4) to C++/Kokkos	<i>Balwinder Singh</i> Atmospheric Sciences and Global Change Division, Pacific Northwest National Laboratory
11:50 – 12:10	TALK: Verification of the ICON model with the GT4Py dycore - challenges and insights	<i>Abishek Gopal*</i> Institute for Atmospheric and Climate Science, ETH Zurich
12:10 – 1:10	LUNCH	Mesa Lab cafeteria (Included with registration)
1:10 – 2:10	KEYNOTE: Earth system models of the future	<i>Peter Dueben*</i> Earth System Modelling Section, European Centre for Medium Range Weather Forecasts (ECMWF)
2:10 – 2:30	TALK: A Theory of Scientific Programming Efficacy	<i>Michael Coblenz</i> Department of Computer Science, UC San Diego
2:30 – 2:50	TALK: An overview of the MOM6 development cycle	<i>Marshall Ward</i> Geophysical Fluid Dynamics Lab, NOAA
2:50 – 3:20	BREAK	Beverages and light snacks
3:20 – 3:40	TALK: Challenges in Ensuring Reproducibility for Machine Learning Weather Model Training and Deployment	<i>David John Gagne</i> Computational and Information Systems Lab, NCAR
3:40 – 4:00	TALK: METplus: The Long and Winding Road to Unified Verification	<i>Tara Jensen*</i> Research Applications Lab, NCAR
4:00 – 4:20	TALK: Unit Testing NCEPLIBS	<i>Edward Hartnett</i> CIRES/NOAA
4:20 – 5:00	OPEN DISCUSSION	All

*Indicates speaker is remote

Fri. Nov. 10		
8:30 – 9:30	KEYNOTE: Lightweight Formal Methods: The What, Why, and How	<i>John Baugh</i> Civil Engineering and Operations Research, North Carolina State University
9:30 – 9:50	TALK: What could the next 30 years of software verification in climate science look like?	<i>Dominic Orchard*</i> Department of Computer Science and Technology, University of Cambridge and School of Computing, University of Kent
9:50 – 10:10	TALK: Parallel reproducibility of the SHYFEM-MPI model	<i>Francesco Carere*</i> Euro Mediterranean Center on Climate Change Foundation (CMCC Foundation)
10:10 – 10:40	BREAK	coffee, tea, light snacks
10:40– 11:40	KEYNOTE: Contained Chaos: Quality Assurance for the Community Earth System Model	<i>Dorit Hammerling</i> Applied Mathematics and Statistics, Colorado School of Mines
11:40 – 12:00	TALK: Methods and Tools for the Application of UF-ECT to New Climate Models	<i>Teo Price-Broncucia</i> Department of Computer Science, University of Colorado Boulder
12:00 – 12:20	TALK: Ensure the correctness and reproducibility in UFS Weather Model CI	<i>Jun Wang</i> NOAA NWS/EMC
12:20 – 1:20	LUNCH	Mesa Lab cafeteria (Included with registration)
1:20 – 1:40	TALK: Towards Ensuring Statistical Climate Reproducibility of Earth System Models in the Exascale Age	<i>Salil Mahajin</i> Computational Earth Sciences Group, Oak Ridge National Laboratory
1:40 – 2:00	TALK: Improvements in Reproducibility Testing Through False Discovery Rate Correction	Michael Kelleher Computational Earth Sciences Group, Oak Ridge National Laboratory
2:00 – 3:30	PANEL: Correctness and verification across platforms	<u>Moderator:</u> <i>Brian Dobbins</i> , NCAR <u>Panelists:</u> <ul style="list-style-type: none"> - <i>Ilene Carpenter</i>, Hewlett Packard Enterprise - <i>Karsten Peters-von Gehlen</i>, Deutsches Klimarechenzentrum GmbH (DKRZ) - <i>Ganesh Gopalakrishnan</i>, University of Utah - <i>Aaron Donahue</i>, Livermore National Laboratory
3:30 – 4:00	BREAK	Beverages and light snacks
4:00– 5:00	CLOSING DISCUSSION	All

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