Program at a Glance

	Classroom A	Classroom B	Classroom C	Classroom D
Time (CDT)	Day 1 – Tuesday, May 19, 2026			
2:00 - 2:30 PM	Arrival at Jackson Center and Registration			
2:30 - 3:00 PM	Opening Remarks			
3:00 - 4:30 PM	Agency Perspectives Panel			
4:30 - 5:30 PM	Technical Keynotes			
6:00 - 8:00 PM	Social Dinner at USSRC Saturn V Hall			

Time (CDT)	Day 2 – Wednesday, May 20, 2026			
7:00 - 8:00 AM	Arrival at Jackson Center and Registration			
8:00 - 10:00 AM	Good practices for GFM development and deployment Oral Session		Science-based approaches to benchmarking and evaluating FMs in EO Oral Session	
10:00 - 11:30 AM	Poster Session		Collaborative Discussion - Embeddings	
11:30 - 1:00 PM	Lunch			
1:00 - 3:00 PM	Agentic AI for EO and its integration with FMs Oral Session	From Operational Needs to FM Design: A Co-Design Lab for Disaster-Ready EO FMs Hands-On Session	Operational Geospatial AI: Fine-Tuning, Inference, and Scalable EO Model Serving Hands-On Session	Collaborative Discussion
3:00 - 5:00 PM	Building Agentic Earth Intelligence: A Hands-On Tour of the EVE Platform and Tool Ecosystem Hands-on Session	Earth Embeddings for EO: Retrieval, Discovery, and Change-Oriented Search Hands-On Session		
5:00 - 5:30 PM	Closing Remarks			

Time (CDT)	Day 3 – Thursday, May 21, 2026	
7:00 - 8:00 AM	Arrival at Jackson Center and Registration	
8:00 - 10:00 AM	Latest advances in AI FMs Oral Session	Adapting FMs to geospatial data (multimodal, multiresolution, etc. including Language Models, VLMs) and specific EO tasks Oral Session
10:00 - 10:15 AM	Coffee Break	
10:15 - 12:15 PM	Latest advances in AI FMs Oral Session	Towards Operational and Commercial use of FMs in EO Oral Session
12:15 - 1:30 PM	Lunch	
1:30 - 3:00 PM	Poster Session	Collaborative Discussion - Benchmarking
3:00 - 5:00 PM	Exploring embedding space for causality, science discovery, semantic data mining and data volume reduction Oral Session	Science-based approaches to benchmarking and evaluating FMs in EO Oral Session
5:00 - 5:30 PM	Closing Remarks	

Time (CDT)	Day 4 – Friday, May 22, 2026			
7:00 - 8:00 AM	Arrival at Jackson Center and Registration			
8:00 - 12:00 PM	Building a GeoAI Agent: A Hands-On Tutorial on Agentic Foundation Models for Earth Observation Hands-On Session	Quantitative Evaluation and Science-Driven Use of Weather Foundation Models Hands-On Session	Building Scalable AI EO Workflows: TerraTorch Embedding Workflows & TerraTorch Iterate for Zero-Invasive HPO and NAS Hands-On Session	Collaborative Discussion
12:00 - 12:30 PM	Closing Remarks			

Detailed Program

Day 1 – Tuesday, May 19, 2026

2:00 - 2:30 PM Arrival and Registration

Arrival at Jackson Center
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Receive Name Tag

2:30 - 3:00 PM Opening Remarks

Marshall Space Flight Center Welcome - Kathy Byars, NASA Marshall Space Flight Center Science and Technology Office
1st European Space Agency/NASA Workshop Success - Nicolas Longepe European Space Agency Φ-lab
Goals for 2nd European Space Agency/NASA Workshop - Rahul Ramachandran, NASA Office of Data Science and Informatics

3:00 - 4:30 PM Agency Perspectives Panel *Moderated by Rahul Ramachandran, NASA Office of Data Science and Informatics*

NASA — Matthew McClure, Data Science and Innovation Lead, Office of the Chief Science Data Officer
NASA — Emily Sylak-Glassman, Deputy Associate Director, Earth Action
ESA — Giuseppe Borghi, Division Lead, Φ-lab
NOAA — Rob Redmon, Director, NOAA Center for AI
Oak Ridge National Laboratory — Forrest Hoffman, Group Leader, Integrated Computational Earth Sciences

4:30 - 5:30 PM Technical Keynotes *Moderated by Nicolas Longépé, European Space Agency Φ-lab*

Technology Roadmapping and Future of Computing - Juan Bernabe Moreno, IBM Research
Earth Intelligence in the age of Foundation Models - Mikolaj Czerkawski, Asterisk Labs
Presentation Title TBA - Pierre Gentine, Columbia University Earth and Environmental Engineering
Q&A - Moderated by Nicolas Longepe, European Space Agency Φ-lab

6:00 - 8:00 PM Social Dinner

United States Space and Rocket Center Saturn V Hall

Presentation When Data Becomes Science: NASA Informatics in the Age of AI presentation by Kaylin Bugbee, NASA Data and Analysis Services Project Lead

Day 2 – Wednesday, May 20, 2026

7:00 - 8:00 AM Arrival and Registration

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8:00 - 10:00 AM Classroom A: Oral Session – Good practices for GFM development and deployment *Moderated by Ruben Cartuyvels, European Space Agency Φ-lab*

8:00- 8:05 AM *Session Introduction*
Presenter: Ruben Cartuyvels, European Space Agency Φ-lab

8:05 - 8:20 AM *TerraKit: An Open-Source Python Library for Streamlining Multimodal and Multiresolution Data Access for Geospatial Foundation Models* by R. Lickorish et al
Presenter: Romeo Kienzler, IBM Research

8:20 - 8:35 AM *TerraTorch: A Standardized Open-Source Framework for Embedding Generation and Fine-Tuning of Geospatial Foundation Models* by R. Kienzler et al
Presenter: Romeo Kienzler, IBM Research

8:35 - 8:50 AM *Benchmarking and Scaling Earth Observation Foundation Models with vLLM and Kubernetes Orchestration* by M. Gazzetti et al
Presenter: Michele Gazzetti, IBM Research

8:50 - 9:05 AM *Geospatial Exploration and Orchestration Studio: An integrated platform for fine-tuning, inference, and orchestration of geospatial AI models* by B. Edwards et al
Presenter: Blair Edwards, IBM Research

9:05 - 9:20 AM *Hawaii Cropland Data Layers (HCDL) V2.0: Leveraging Satellite Embeddings for Operational Crop Mapping* by Z. Li et al
Presenter: Zhe Li, USDA National Agricultural Statistics Survey

9:20 - 9:35 AM *Enhanced onboard autonomy, versatility and performance by geospatial foundation models* by R. Del Prete et al
Presenter Nicolas Longepe, European Space Agency Φ-lab

9:35 - 10:00 AM *Open discussion*

8:00 - 10:00 AM Classroom B: Oral Session – Science-based approaches to benchmarking and evaluating FMs in EO *Moderated by Valerio Marsocci, European Space Agency Φ-lab*

8:00 - 8:05 AM *Session Introduction*
Presenter: Valerio Marsocci, European Space Agency Φ-lab

8:05 - 8:20 AM *GEO-Bench-2: From Performance to Capability, Rethinking Evaluation in Geospatial AI* by H. Alemohammad et al
Presenter: Hamed Alemohammad, Clark University

8:20 - 8:35 AM *Toward Holistic Benchmarking of Earth Observation Foundation Models* by N. LaHaye et al

Presenter: Nicolas LaHaye, Spatial Informatics Group

8:35 - 8:50 AM *GELOS: An Embedding-Centric Benchmark for Geospatial Foundation Models* by S. Khallaghi et al

Presenter: Sam Khallaghi, Clark University

8:50 - 9:05 AM *Benchmarking Geospatial Foundation Models For Dynamic Irrigation Mapping* by E. Jalilvand et al

Presenter: Ehsan Jalilvand, NASA Goddard Space Flight Center

9:05 - 9:20 AM *Operational Trust through 20ESP: A Rigorous Taxonomy for Science-Based EO Foundation Model Benchmarking* by J. Cardille et al

Presenter: Jeffrey Cardille, McGill University

9:20 - 9:35 AM *WaterBench & MMOcean: Benchmarking and Pretraining Foundation Models for Coastal and Marine Earth Observation* by A. Prasad et al

Presenter: Ayush Prasad, Finnish Meteorological Institute

9:35 - 9:50 AM *Adversarial Robustness in Earth Observation: A Unified Benchmark Across Tasks, Models, and Datasets* by V. Marsocci et al

Presenter: Valerio Marsocci, European Space Agency Φ-lab

9:50 - 10:00 AM *Open discussion*

10:00 - 11:30 AM Classroom C – Collaborative Discussion: Embeddings

Moderators: Hamed Alemohammed, Clark University; Ruben Cartuyvels, European Space Agency Φ-lab; Isabelle Wittmann, IBM Research

10:00 - 11:30 AM Main Atrium – Poster Session

Adapting Earth Observation Foundation models for Cloud to surface projections by M. Avinashe et al

Deep CNN-Driven Lithological Mapping Using HHO-Optimized ResNet-18 and GoogleNet Architectures by Y. Bahrami et al

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Axiom: A Benchmarking Platform for Science-Based Evaluation of AI Foundation Models in Earth Observation by N. Pantha et al

Guardrails for GeoAI: An Agentic Validation Framework for Geospatial Foundation Model Outputs by N. Pantha et al

Leveraging Earth Observation Foundation Model Embeddings for Characterizing Soil Properties by P. Qu et al

Semantic Change Detection: Leveraging Low-Dimensional Embedding Distances for Phenological Invariance by S. Ralser et al

Delivering Rapid, Low-Cost Atmospheric Composition Forecast Guidance: A Fine-Tuned Prithvi WxC System for End-User Decision Support by A. Raman et al

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HLS-GPT: A Generative Pretrained Transformer (GPT) Model for Accurate Harmonized Landsat and Sentinel-2 (HLS) Reflectance Time Series Reconstruction by H. Zhang et al

11:30 - 1:00 PM Lunch

1:00 - 3:00 PM Classroom A Oral Session: Agentic AI for EO and its integration with FMs
Moderated by Nidhi Jha, University of Alabama in Huntsville

1:00 - 1:05 PM *Session Introduction*
Presenter: Nidhi Jha, University of Alabama in Huntsville

1:05 - 1:20 PM *A Knowledge Graph-Enhanced Pipeline for Scalable and Traceable Gap Analysis in Earth Observation Literature* by M. Moses et al
Presenter: Movina Moses, IBM Research

1:20 - 1:35 PM *Agents for Science: A Framework for Verifiable Evaluation and Correction of Scientific Text* by J. Barry et al
Presenter: James Barry, IBM Research

1:35 - 1:50 PM *GeoAI agents for Earth Observation: from questions to insights* by L. Thomas et al
Presenter: Leo Thomas, Development Seed

1:50 - 2:05 PM *Hydrology Copilot: A Cloud-Native AI System for Hydrological Data Analysis* by M. Hashemi et al
Presenter: Mahya Heshemi, NASA Goddard Space Flight Center

2:05 - 2:20 PM *Earth AI Agents: Operationalizing Downstream Use of Geospatial Foundation Models with Agentic Workflows* by D. Bell et al
Presenter: David Bell, Universities Space Research Association

2:20 - 2:35 PM *EVE: An Open Agentic Platform for Earth Intelligence* by A. Atrio et al
Presenter: Àlex Atrio, Pi School

2:35 - 2:50 PM *Agentic AI for Bridging Earth Foundation Models and Process-Based Benchmarking in ILAMB* by H. Wang et al
Presenter: Huiqui Wang, University Of California, Berkeley

2:50 - 3:00 PM *Open discussion*

1:00 - 3:00 PM Hands-On Session: From Operational Needs to FM Design: A Co-Design Lab for Disaster-Ready EO FMs - Classroom B

1:00 - 5:00 PM Hands-On Session: Operational Geospatial AI: Fine-Tuning, Inference, and Scalable EO Model Serving - Classroom C

1:00 - 5:00 PM Open Collaborative Discussion - Classroom D

3:00 - 5:00 PM Hands-On Session: Building Agentic Earth Intelligence: A Hands-On Tour of the EVE Platform and Tool Ecosystem - Classroom A

3:00 - 5:00 PM Hands-On Session: Earth Embeddings for EO: Retrieval, Discovery, and Change-Oriented Search - Classroom B

5:00 - 5:30 PM Closing Remarks - Classroom A

Day 3 – Thursday, May 21, 2026

7:00 - 8:00 AM Arrival and Registration

Arrival at Jackson Center
Sign in at Registration Table
Receive Name Tag

8:00 - 10:00 AM Classroom A Oral Session: Latest advances in AI FMs *Moderated by Sujit Roy, University of Alabama in Huntsville*

8:00 - 8:05 AM *Session Introduction*
Presenter: Sujit Roy, University of Alabama in Huntsville

8:05 - 8:20 AM *Towards Knowledge Guided Pretraining Approaches for Multimodal Foundation Models: Applications in Remote Sensing* by P. Ravirathinam et al
Presenter: Praveen Ravirathinam, University of Minnesota, Twin Cities

8:20 - 8:35 AM *TerraMind 2.0* by J. Jakubik et al
Presenter: Johannes Jakubik, IBM Research

8:35 - 8:50 AM *THOR: A Versatile, Compute-Adaptive Foundation Model for Earth Observation* by A. Salberg et al
Presenter: Theodor Forgaard, Norwegian Computing Center

8:50 - 9:05 AM *TerraVerse: Simulating Future Satellite Mission Imagery* by B. Blumenstiel et al
Presenter: Benedikt Blumenstiel, IBM Research

9:05 - 9:20 AM *SpecTM: Spectral Targeted Masking for Trustworthy Foundation Models* by S. Imtiaz et al
Presenter: Syed Usama Imtiaz, Florida State University

9:20 - 9:35 AM *COP-GEN: Stochastic Generative Modelling of Copernicus Data* by M. Espinosa et al
Presenter: Miguel Espinosa, University of Edinburgh

9:35 - 9:50 AM *GeospatialVLM: Bridging Pixel-Level Reasoning and Natural Language for Operational Earth Observation* by G. Mutreja et al
Presenter: Guneet Mutreja, DLR

9:50 - 10:00 AM *Open discussion*

8:00 - 10:00 AM Classroom B Oral Session: Adapting FMs to geospatial data (multimodal, multiresolution, etc. including Language Models, VLMs) and specific EO tasks *Moderated by Campbell Watson, IBM Research*

8:00 - 8:05 AM *Session Introduction*
Presenter: Campbell Watson, IBM Research

8:05 - 8:20 AM *Geospatial Foundation Models Scaling on the MajorTOM and FastTOM Datasets: Evaluation on the PhilEO Bench* by N. Dionelis et al
Presenter: Nikolaos Dionelis, University of Alabama in Huntsville

8:20 - 8:35 AM *Beyond Backscatter: The Case for Phase-Aware Temporal Foundation Models in Conflict Damage Mapping* by P. Barthelme et al
Presenter: Philipp Barthelme, Oregon State University

8:35 - 8:50 AM *A Contrastive Self-supervised Learning Model for Soil Moisture Retrieval from P-band PolSAR* by S. Khallaghi et al
Presenter: Sam Khallaghi, Clark University

8:50 - 9:05 AM *Enhancing Earth Observation Foundation Models with Sparse and Asynchronous In Situ Air Pollution Data* by G. Arvanitakis et al
Presenter: George Arvanitakis, Technology Innovation Institute

9:05 - 9:20 AM *From Satellite Data, GFMs and Geo-tagged Field Photos to Reliable Agricultural Reference Data* by R. Cartuyvels et al
Presenter: Ruben Cartuyvels, European Space Agency Φ-lab

9:20 - 9:35 AM *Spaceborne ICEuropean Space Agencyt2 and AI Foundation Model highlight asymmetric canopy height change across southeastern US forests* by C. Alvites Diaz et al
Presenter: CEuropean Space Agencyr Ivan Alvites Diaz, University of Florida

9:35 - 9:50 AM *A regional-scale assessment of a foundation model approach to monitoring above-ground biomass* by M. Truong et al
Presenter: Myscon Truong, Spatial Informatics Group

9:50 - 10:00 AM *Open discussion*

10:00 - 10:15 AM Coffee Break

10:15 - 12:15 PM Classroom A Oral Session: Latest advances in AI FMs *Moderated by Sujit Roy, University of Alabama in Huntsville*

10:15 - 10:20 AM *Session Introduction*
Presenter: Sujit Roy, University of Alabama in Huntsville

10:20 - 10:35 AM *SHRUG-FM: Reliability-Aware Foundation Models for Earth Observation* by R. Cartuyvels et al
Presenter: Ruben Cartuyvels, European Space Agency Φ-lab

10:35 - 10:50 AM *Ranking the Changes: Reinforced Best-of-N Ranking with Retrieval-Augmented Vision-Language Models for Semantic Change Captioning* by R. Kazoom et al
Presenter: Nadav Sherman, Google

10:50 - 11:05 AM *Open-World Change Detection via Natural Language* by F. Yu et al
Presenter: Fuxun Yu, Terrabyte AI

11:05 - 11:20 AM *Logit–Koopman Priors for Stable, Multiscale Generative Forecasting and Transfer Diagnostics in Earth-System Foundation Models* by M. Pena et al
Presenter: Malaquias Pena, University of Connecticut

11:20 - 11:35 AM *Zero-shot regional weather forecasts* by B. Lutjens et al
Presenter: Bjorn Lutjens, IBM Research

11:35 - 11:50 AM *PDE foundation models are skillful AI weather emulators for the Martian atmosphere* by J. Schmude et al
Presenter: Johannes Schmude, IBM Research

11:45 - 12:05 PM *SatVision-Pix4D: Toward Improved Cloud and Convection Prediction via Spatiotemporal Foundation Modeling* by J. Caraballo-Vega et al
Presenter: Jordan Caraballo-Vega, NASA Goddard Space Flight Center

12:05 - 12:15 PM *Open discussion*

10:15 - 12:15 PM Classroom B Oral Session: Towards Operational and Commercial use of FMs in EO *Moderated by Hamed Alemohammad, Clark University*

10:15 - 10:20 AM *Session Introduction*
Presenter: Hamed Alemohammad, Clark University

10:20 - 10:35 AM *Practical application of Prithvi-EO-2.0 to real world tasks: evaluating mapped predictions of forest biomass, land use, and landscape change agent* by R. Kennedy et al
Presenter: Robert Kennedy, Oregon State University

10:35 - 10:50 AM *Dense MWIR Embeddings for Ultra-Low-Latency Wildfire Detection in Commercial EO* by M. Rotzer et al
Presenter: Matthias Rotzer, Ororatech Gmbh

10:50 - 11:05 AM *Hierarchy-Native EO Foundation Models for Real-Time Digital Twins* by M. Pena et al
Presenter: Malaquias Pena, University of Connecticut

11:05 - 11:20 AM *Global Monitoring and Risk Assessment of Mining and Human Activity for Decision Making at Both Scale and Speed Using Foundation Models* by R. Lav et a
Presenter: Refael Lav, Deloitte

11:20 - 11:35 AM *EarthDaily FM - High-Cadence Geospatial Foundation Models for Real-World Agricultural Forecasting* by C. Rampersad et al
Presenter: Chris Rampersad, Earthdaily Analytics

11:35 - 11:50 AM *From Earth Foundation Models to Operational Decision Support: Application of GFT in Real-World Power Grid Operations* by S. Flampouris et al
Presenter: Jayesh Gupta, Silurian AI

11:50 - 12:05 PM *From Static Indices to Adaptive Multi-Hazard Vulnerability Models: EO-Informed, Uncertainty-Aware Risk Stratification for Urban Response* by D. Johnson et al
Presenter: Daniel Johnson, Indiana University - Indianapolis

12:05 - 12:15 PM *Open discussion*

12:15 - 1:30 PM Lunch

1:30 - 3:00 PM Classroom C – Collaborative Discussion: Benchmarking

Moderators: Valerio Marsocci, European Space Agency Φ-lab; Robert Kennedy, Oregon State University

1:30 - 3:00 PM Main Atrium – Poster Session

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3:00 - 5:00 PM Classroom A Oral Session: Exploring embedding space for causality, science discovery, semantic data mining and data volume reduction *Moderated by Mina Burns, Oregon State University*

3:00 - 3:05 PM *Session Introduction*
Presenter: Mina Burns, Oregon State University

3:05 - 3:20 PM *Context-Aware Multimodal Representation Learning for Spatio-Temporally Explicit Environmental Modelling* by J. Peters et al
Presenter: Julia Peters, Leipzig University

3:20 - 3:35 PM *Text-Aligned Earth Observation Embeddings for Natural Language Search and Discovery* by J. Gilman et al
Presenter: Jason Gilman, Element 84

3:35 - 3:50 PM *Leveraging Multi-Dimensional Embedding Space for Enhanced Vegetation Stress Detection* by P. Arellano et al
Presenter: Paul Arellano, Northern Arizona University

3:50 - 4:05 PM *Foundation Model Embeddings as Contextual Priors for Hyperlocal Near-Surface Air Temperature Mapping* by R. Devajji et al
Presenter: Rahul Devaji, Indiana University Bloomington

4:05 - 4:20 PM *Reinforcement Learning for Adaptive Environmental Sensing with Self-Supervised Hyperspectral Foundation Representations* by M. Nasr Azadani et al
Presenter: Mitra Nasr Azadani, Florida State University

4:20 - 4:35 PM *Deployable Learned Compression for Satellite Imagery on MPSoC/FPGA Payloads Using Hardware-Aware Transforms and Bit-Exact Entropy Coding* by T. Bui et all
Presenter: Trong-An Bui, National Taipei University of Technology

4:35 - 5:00 PM *Open discussion*

3:00 - 5:00 PM Classroom B Oral Session: Science-based approaches to benchmarking and evaluating FMs in EO *Moderated by Valerio Marsocci, European Space Agency Φ-lab*

3:00 - 3:05 PM *Session Introduction*
Presenter: Valerio Marsocci, European Space Agency Φ-lab

3:05 - 3:20 PM *TerraMind vs. THOR: A comparative analysis of two Geospatial Foundation Models* by V. Marsocci et al
Presenter: Valerio Marsocci, European Space Agency Φ-lab

3:20 - 3:35 PM *Towards Disaster-Ready Earth Observation Foundation Models* by J. Van Den Hoek et al
Presenter: Jamon Van Den Hoek, Oregon State University

3:35 - 3:50 PM *Benchmarking Geospatial Foundation Models for LULC Segmentation Under Resolution and Sensor Shifts* by C. Hucko et al
Presenter Can Michael Hucko, Istanbul Technical University

3:50 - 4:05 PM *Benchmarking Geo-Foundation Models for Glacial Lake Mapping: supporting global scale applications* by S. Kaushik et al
Presenter: Saurabh Kaushik, University Of Wisconsin-Madison

4:05 - 4:20 PM *SkySpector: From Caption Matching to Archive Search with a Multi-Positive Benchmark* by C. Tomoiaga et al
Presenter: Ciprian Tomoiaga, AXA

4:20 - 4:35 PM *Do EO foundation models encode land-use semantics? A distance-based evaluation with seasonal Harmonized Landsat–Sentinel data* by K. Islam et al
Presenter: K M Ashraful Islam, Oregon State University

4:35 - 5:00 PM *Open discussion*

5:00 - 5:30 PM Closing Remarks

Day 4 – Friday, May 22, 2026

7:00 - 8:00 AM Arrival and Registration

Arrival at Jackson Center
Sign in at Registration Table
Receive Name Tag

8:00 - 12:00 PM Hands-On Session: Building a GeoAI Agent: A Hands-On Tutorial on Agentic Foundation Models for Earth Observation - Classroom A

8:00 - 12:00 PM Hands-On Session: Quantitative Evaluation and Science-Driven Use of Weather Foundation Models Hands-On Session - Classroom B

8:00 - 12:00 PM Hands-On Session: Building Scalable AI EO Workflows: TerraTorch Embedding Workflows & TerraTorch Iterate for Zero-Invasive HPO and NAS Hands-On Session - Classroom C

8:00 - 12:00 PM Open Collaborative Discussion - Classroom D

12:00 - 12:30 PM Closing Remarks - Classroom A