

The 13th International Conference on Agro-Geoinformatics

July 7-10, 2025 | Boulder, CO, USA



agro-geoinformatics.org

Agro-Geoinformatics 2025

Conference Program

Conference Organizers:



Conference Technical Sponsors:



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Conference Committees

General Conference Chairs

Dr. Liping Di, George Mason University, USA
 Dr. Christopher L. Castro, NSF National Center for Atmospheric Research (NCAR), USA

Scientific Committee

Chairs	Dr. Cenlin He, NSF National Center for Atmospheric Research (NCAR), USA Dr. Berk Ustundag, Istanbul Technical University, Turkey
Members	Dr. Lizhe Wang, China University of Geosciences (Wuhan), China Dr. Nengcheng Chen, China University of Geosciences (Wuhan), China Dr. Yuqi Bai, Tsinghua University, China Dr. Peng Yue, Wuhan University, China Dr. Hong Fan, Wuhan University, China Dr. Wenbin Wu, Chinese Academy of Agricultural Sciences, China Dr. Jingfeng Huang, Zhejiang University, China Dr. Lizhen Lu, Zhejiang University Dr. Chao Zhang, Agricultural University of China, China Dr. Xiaolong Dong, Chinese Academy of Sciences, China Dr. John Qu, George Mason University, USA Dr. Qinghan Dong, VITO, Belgium Dr. Saeid Homayouni, INRS, Centre Eau Terre Environnement, Canada Dr. Bedir Tekinerdogan, Wageningen University, Netherlands Dr. Faisal Qamer, International Centre for Integrated Mountain Development, Nepal Dr. Zhengwei Yang, USDA NASS, USA Dr. Li Lin, United Arab Emirates University, UAE Dr. Zhongxin Chen, Food and Agriculture Organization of the United Nations (FAO) Dr. Feng Gao, USDA Agricultural Research Service, USA Dr. Wolfgang Kresse, Hochschule Neubrandenburg, Germany Dr. Josh Lieberman, Open Geospatial Consortium (OGC), USA Dr. Jenny Du, Mississippi State University, USA Dr. Ruixin Yang, George Mason University, USA Dr. Eugene Yu, George Mason University, USA Dr. Liying Guo, George Mason University, USA Dr. Chen Zhang, George Mason University, USA Dr. Veraldo Liesenberg, Santa Catarina State University (UDESC), Brazil Dr. Tien-Yin (Jimmy) Chou, Feng Chia University, Taiwan Dr. R. Andres Ferreyra, Syngenta, USA Dr. Keshav D Singh, AAFC, Canada Dr. Qian Liu, University of Missouri, USA

Publication Committee

Chair	Dr. Chen Zhang, George Mason University, USA
Member	Bosen Shao, George Mason University, USA Ziao Liu, George Mason University, USA Hanxi Li, George Mason University, USA Xinyu Wang, George Mason University, USA

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NSF National Center for Atmospheric Research (NCAR)

Agro-Geoinformatics 2025

Program at a Glance

Conference Venue: NCAR Center Green Campus (3090 Center Green Dr, Boulder, CO 80301, USA)

Day 1: July 7, 2025 (Monday)	
08:30-09:00	Badge Pickup and On-site Registration
09:00-09:40	Opening Ceremony (location: CG1-1210/1212/1214)
09:40-10:20	Keynote Speech (location: CG1-1210/1212/1214)
10:20-10:40	Coffee Break
10:40-12:00	Keynote Speech (location: CG1-1210/1212/1214)
12:20-14:00	Lunch
14:00-15:30	Breakout Sessions (location: CG1-3131/CG1-2126)
15:30-15:50	Coffee Break
15:50-17:30	Breakout Sessions (location: CG1-3131/CG1-2126)
18:00-20:00	Conference Opening Reception
Day 2: July 8, 2025 (Tuesday)	
9:00-10:30	Plenary Session (location: CG1-1210/1212/1214)
10:30-10:50	Coffee Break
10:50-12:20	Plenary session (location: CG1-1210/1212/1214)
12:20-14:00	Lunch
14:00-15:30	Breakout Sessions (location: CG1-3131/CG1-2126)
15:30-15:50	Coffee Break
15:50-17:30	Breakout Sessions (location: CG1-3131/CG1-2126)
Day 3: July 9, 2025 (Wednesday)	
9:00-10:30	Plenary Session (location: CG1-3131)
10:30-10:50	Coffee Break
10:50-12:20	Plenary Session (location: CG1-3131)
12:20-14:00	Lunch
14:00-15:30	Breakout Sessions (location: CG1-3131/CG1-2126)
15:30-15:50	Coffee Break
15:50-16:50	Breakout Sessions (location: CG1-3131/CG1-2126)
16:50-17:30	Conference Summary and Discussion (location: CG1-3131)
Day 4: July 10, 2025 (Thursday)	
09:00-12:20	Technical Tour
09:00-12:20	CropSmart Team Meeting (invited only)

Note: All times listed in the conference program are in **Mountain Time (MT), GMT-6.*

Table of Sessions

The meaning of the general breakout session label: G-Day-Session-Room. For example, G1.3.1 means the general breakout session is on day 1, the 3rd session (from 14:00 to 15:30) at breakout room 1.

P2.1: Plenary Session 1
P2.2: Plenary Session 2
P3.1: Plenary Session 3
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G1.3.1: GeoAI and Earth Observation Driven Advances in Agricultural and Environmental Science 1
G1.3.2: Geospatial Intelligence and Innovative Applications in Agriculture
G1.4.1: Agricultural Ecosystem Monitoring, Assessment, Conservation, and Service Sustainability
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G2.3.1: GeoAI and Earth Observation Driven Advances in Agricultural and Environmental Science 2
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G3.4.1: Land Cover Mapping and Land Change Science/Conference Summary and Discussion
G3.4.2: Student Competition 3

Conference Program

Opening Ceremony

Monday, July 7, 2025

9:00 – 9:40 MT (GMT-6)

Location: CG1-1210/1212/1214 (Auditorium)

Zoom Link: <https://ucar-edu.zoom.us/j/96420485483?pwd=gYLb6L1AbmvhiWdvCLR2LwnYX6IMUE.1>

Time	Event
9:00-9:10 MT (GMT-6)	Welcome Address Christopher Castro, NSF NCAR
9:10-9:20 MT (GMT-6)	Welcome Address Liping Di, President of ISAM
9:20-9:30 MT (GMT-6)	Introduction to the Conference Technical Program Cenlin He, NSF NCAR
9:30-9:40 MT (GMT-6)	Announcement of Agro-geoinformatics 2026 Xiaoyu Zhang, Zhejiang University

Keynote Session

Monday, July 7, 2025

9:40 – 12:00 MT (GMT-6)

Chair: Ruixin Yang

Location: CG1-1210/1212/1214 (Auditorium)

Zoom Link: <https://ucar-edu.zoom.us/j/96420485483?pwd=gYLb6L1AbmvhiWdvCLR2LwnYX6IMUE.1>

Time	Event
9:40-10:20 MT (GMT-6)	OGC: Improving Engagement and Relevance Scott Simmons, OGC
10:20-10:40 MT (GMT-6)	Coffee Break
10:40-11:20 MT (GMT-6)	Integrating AVHRR/MODIS/VIIRS monthly NDVI for Australian national carbon accounting and inventory reporting Tingbao Xu, Australian National University
11:20-12:00 MT (GMT-6)	Linking crops to global climate: Modeling agricultural management in an Earth system model Danica Lombardozzi, Colorado State University

Plenary Session Schedule

P2.1: Plenary Session 1

Tuesday, July 8, 2025

9:00 – 10:30 MT (GMT-6)

Session Chair: Chen Zhang (czhang11@gmu.edu)

Location: CG1-1210/1212/1214 (Auditorium)

Zoom Link: <https://ucar-edu.zoom.us/j/96420485483?pwd=gYLb6L1AbmvhiWdvCLR2LwnYX6IMUE.1>

Time	Event
9:00–9:30 MT (GMT-6)	Improving winter cover crop mapping using remote sensing phenology Feng Gao, USDA ARS
9:30–10:00 MT (GMT-6)	CropSmart Digital Twin: Automating the agricultural decision making Liping Di, George Mason University
10:00–10:30 MT (GMT-6)	Coupling Radiative Transfer Models and Deep Learning for Crop Trait Retrieval in Dryland Ecosystems Cecilia Masemola, Council for Scientific and Industrial Research (CSIR)
Coffee Break	

P2.2: Plenary Session 2

Tuesday, July 8, 2025

10:50 – 12:20 MT (GMT-6)

Session Chair: Cenlin He (cenlinhe@ucar.edu)

Location: CG1-1210/1212/1214 (Auditorium)

Zoom Link: <https://ucar-edu.zoom.us/j/96420485483?pwd=gYLb6L1AbmvhiWdvCLR2LwnYX6IMUE.1>

Time	Event
10:50–11:20 MT (GMT-6)	Hyperspectral Band selection for Agricultural Tillage Practice Mapping Qian Du, Mississippi State University
11:20–11:50 MT (GMT-6)	Innovations of AI and ML for Agricultural Sustainability Yanbo Huang, USDA ARS
11:50–12:20 MT (GMT-6)	Reverse Digitalization in Agriculture: Financing-Led Observation Systems for Sustainable Production and Data-Driven Cooperatives Berk Ustundag, Istanbul Technical University

P3.1: Plenary Session 3

Wednesday, July 9, 2025

9:00 – 10:30 MT (GMT-6)

Session Chair: Chen Zhang (czhang11@gmu.edu)

Location: CG1-3131

Zoom Link: <https://ucar-edu.zoom.us/j/95814209825?pwd=yEVa3t6F8TheUvAnR75E55NaclzqIE.1>

Time	Event
9:00–9:30 MT (GMT-6)	Achievements and Challenges of Using Crop Simulation for Crop Management Decision Support Haishun Yang, University of Nebraska-Lincoln
9:30–10:00 MT (GMT-6)	Climate Extremes, Irrigation, and Crop Resilience in the U.S. Great Plains: Lessons from Wheat and Maize Xiaomao Lin, Kansas State University
10:00–10:30 MT (GMT-6)	Annual NLCD Collection 1.0: Four Decades of Agricultural Change Across the Conterminous U.S. Suming Jin, USGS EROS Center
Coffee Break	

P3.2: Plenary Session 4

Tuesday, July 9, 2025

10:50 – 12:20 MT (GMT-6)

Session Chair: Cenlin He (cenlinhe@ucar.edu)

Location: CG1-3131

Zoom Link: <https://ucar-edu.zoom.us/j/95814209825?pwd=yEVa3t6F8TheUvAnR75E55NaclzqIE.1>

Time	Event
10:50–11:20 MT (GMT-6)	Satellite-guided crop phenology map for accurate intra-season modeling Yan Jiang, UC San Diego
11:20–11:50 MT (GMT-6)	High-Throughput Remote Sensing for Early Detection of Disease and Drought Stress in Crops using Hyperspectral and Thermal Imaging Technologies Keshav Singh, AAFC
11:50–12:20 MT (GMT-6)	Q/A and Discussion

Breakout Session Schedule (Day 1)

G1.3.1: GeoAI and Earth Observation Driven Advances in Agricultural and Environmental Science 1

Session Chair: Bosen Shao (bshao2@gmu.edu)

Monday, July 7, 2025

14:00 – 15:30 MT (GMT-6)

Location: CG1-3131

Zoom Link: <https://ucar-edu.zoom.us/j/95814209825?pwd=yEVa3t6F8TheUvAnR75E55NaclzqIE.1>

Time	ID	Title & Authors
14:00-14:20 MT (GMT-6)	15	Spatial Explicit Nitrogen Management for Sustainable Rice Cultivation: Integrating Earth Observation and Nitrogen Balance Modeling Sukij Skawsang, Porutai Thianthai, Panu Nuangjamnong and Nuntikorn Kitratporn
14:20-14:40 MT (GMT-6)	41	Enhancing Crop Type Classification in Smallholder Farms: integrating spatial-temporal features with LSTM-MLP Valinho António, Eric Umuhoza, Catherine Lilian Nakalembe, Pierre Bakunzibake and Moise Busogi
14:40-15:00 MT (GMT-6)	56	A Framework for AI-based Crop Yield Prediction Modeling Using Satellite Images and Tractor Data Anjin Chang and Bahadır Bilgin
15:00-15:20 MT (GMT-6)	68	Intelligent identification of plastic-mulched farmland from remote sensing images in complex surface areas Jingwen Gu, Lizhen Lu and Yuqi Du
15:20-15:30 MT (GMT-6)		Q/A and Discussion
Coffee Break		

G1.3.2: Geospatial Intelligence and Innovative Applications in Agriculture

Session Chair: Hanxi Li (hli51@gmu.edu)

Monday, July 7, 2025

14:00 – 15:30 MT (GMT-6)

Location: CG1-2126

Zoom Link: <https://ucar-edu.zoom.us/j/93816265715?pwd=eelDjnZa5lWkG5wsTikTxdQmLsK9Qe.1>

Time	ID	Title & Authors
14:00-14:20 MT (GMT-6)	25	Integrating Remote Sensing and Machine Learning for Cotton Yield Mapping and Prediction Jasmine Lopez, Yuxia Huang, Mahendra Bhandari, Ramana Heggadal Math, Lei Zhao and Ashutosh Tiwari
14:20-14:40 MT (GMT-6)	31	Soil Moisture Retrieval from Harmonized Landsat and Sentinel-2 Time Series Using a Transformer Model Hankui Zhang and Junjie Li
14:40-15:00 MT (GMT-6)	67	A Comparative Study of Transformer-Based and CNN-Based Deep Learning Models for Plastic Greenhouse Detection Using Multi-Resolution Remote Sensing Data Jiayi Shou, Lizhen Lu, Jingwen Gu and Jiayu Xu
15:00-15:20 MT (GMT-6)	73	State Corn and Soybean Yields from County Yield Predictions with Bayesian Neural Network (BNN) Models Zhengwei Yang, Songxi Yang, Xiaoyu Wang, Jiang Chen, Yuchi Ma, Zhou Zhang and Qunying Huang
15:20-15:30 MT (GMT-6)		Q/A and discussion
Coffee Break		

G1.4.1: Agricultural Ecosystem Monitoring, Assessment, Conservation, and Service Sustainability

Session Chair: Xinyu Wang (xwang72@gmu.edu)

Monday, July 7, 2025

15:50 - 17:30 MT (GMT-6)

Location: CG1-3131

Zoom Link: <https://ucar-edu.zoom.us/j/95814209825?pwd=yEVa3t6F8TheUvAnR75E55NaclzqIE.1>

Time	ID	Title & Authors
15:50-16:10 MT (GMT-6)	8	Predicting Suitable Habitats of <i>Pomacea canaliculata</i> under Climate Change in China Based on MaxEnt Model Ling Yao Wang, Hong Na Chen, Jia Jia Chen, Wang Jun Gong and Xiao Hui Li
16:10-16:30 MT (GMT-6)	9	Using Beehive Video Monitoring Data for Individual Bee Flight Assembly and Analysis Andrea Nieves-Rivera and Marie Lluberes-Contreras
16:30-16:50 MT (GMT-6)	34	A Phenology-Corrected Vegetation Condition Index for Improved Vegetation Health Assessment

		Zichen Yue, Shaobo Zhong and Xin Mei
16:50-17:10 MT (GMT-6)	40	Effective Access to Remote Sensing and Model Data for Agriculture from NASA GES DISC Suhung Shen, Irina Gerasimov, Zhong Liu, Peisheng Zhao, Eugene Yu, Liping Di and Hegde Mahabal
17:10-17:30 MT (GMT-6)		Q/A and discussion

G1.4.2: Student Competition 1

Session Chair: Ruixin Yang (ryang@gmu.edu)

Monday, July 7, 2025

15:50 - 17:30 MT (GMT-6)

Location: CG1-2126

Zoom Link: <https://ucar-edu.zoom.us/j/93816265715?pwd=eelDjnZa5lWkG5wsTikTxdQmLsK9Qe.1>

Time	ID	Title & Authors
15:50-16:10 MT (GMT-6)	16	Daily Evapotranspiration Estimation Across Turkiye and Comparative Analysis of Regions Using Machine Learning and Time-Series Analysis with Limited Sensor Data Ahmet Enis Güven, Meriç Yücel and Burak Berk Üstündağ
16:10-16:30 MT (GMT-6)	35	Enhancing Drought Monitoring with Stable Natural Vegetation Sensors Zichen Yue, Shaobo Zhong and Xin Mei
16:30-16:50 MT (GMT-6)	49	The Influence of Extreme Weather on Corn Yield: An Index-Based Analysis of SPI and Agricultural Production on U.S. Corn Belt Ziao Liu, Liping Di, Chen Zhang, Hui Li and Bosen Shao
16:50-17:10 MT (GMT-6)	53	Super-Resolution of Remote Sensing Images in Coastal Cage/Raft Aquaculture Areas Using Gated Multi-Scale Feedforward Attention Network Yuqi Du and Lizhen Lu
17:10-17:30 MT (GMT-6)	74	AI-Powered Satellite Analytics for Spatially Explicit Urban Heat Assessment Edward Guo

Breakout Session Schedule (Day 2)

G2.3.1: GeoAI and Earth Observation Driven Advances in Agricultural and Environmental Science 2

Session Chair: Bosen Shao (bshao2@gmu.edu)

Tuesday, July 8, 2025

14:00 – 15:40 MT (GMT-6)

Location: CG1-3131

Zoom Link: <https://ucar-edu.zoom.us/j/95814209825?pwd=yEVa3t6F8TheUvAnR75E55NaclzqIE.1>

Time	ID	Title & Authors
14:00-14:20 MT (GMT-6)	14	Deep Learning Emulators for Radiative Transfer Models: Accelerating Crop Monitoring in Data-Scarce Regions Cecilia Masemola and Wessel Bonnet
14:20-14:40 MT (GMT-6)	23	Recognition of Hubei Winter Wheat and Rapeseed Based on the Improved U-Net Deep Learning Model Hong Fan, Tianxiang Yu and Peiwen Yao
14:40-15:00 MT (GMT-6)	36	Towards Crowdsourcing Annotation and Sharing Services for Remote Sensing Training Data Yang Zhang, Kaixuan Wang, Peng Yue, Hanwen Xu and Lianlian He
15:00-15:20 MT (GMT-6)	7	Advancing Agro-Geoinformatics Research with Analysis Ready Data: Opportunities and Challenges Li Lin, United Arab Emirates University
15:20-15:40 MT (GMT-6)		Q/A and discussion
Coffee Break		

G2.3.2: Theories, Methodologies and Algorithms in Agromatics 1

Session Chair: Ziao Liu (zliu23@gmu.edu)

Tuesday, July 8, 2025

14:00 – 15:40 MT (GMT-6)

Location: CG1-2126

Zoom Link: <https://ucar-edu.zoom.us/j/93816265715?pwd=eelDjnZa5lWkG5wsTikTxdQmLsK9Qe.1>

Time	ID	Title & Authors
14:00-14:20 MT (GMT-6)	10	Improving Agricultural Prediction with Feature Orthogonality Mehmet Selahaddin Şentop and Berk Ustundag

14:20-14:40 MT (GMT-6)	48	Research on Garlic Extraction Method in Pizhou City Based on Spatio-Temporal Feature Index Qing Peng, Yizhi Wang and Liang Liang
14:40-15:00 MT (GMT-6)	71	Remote sensing assessment of land surface temperature impacts of photovoltaic power plants Tianyu Zheng and Lizhen Lu
15:00-15:20 MT (GMT-6)	20	Agro Sensing Coordination Hub (ASCH): An IoT-Based Infrastructure for Smart Agriculture and Flood Response Dong Chen and Chao Yang
15:20-15:40 MT (GMT-6)		Q/A and discussion
Coffee Break		

G2.4.1: UAV Applications in Agricultural Monitoring

Session Chair: Li Lin (lin@uaeu.ac.ae)

Tuesday, July 8, 2025

15:50 - 17:20 MT (GMT-6)

Location: CG1-3131

Zoom Link: <https://ucar-edu.zoom.us/j/95814209825?pwd=yEVa3t6F8TheUvAnR75E55NacIzqIE.1>

Time	ID	Title & Authors
15:50-16:10 MT (GMT-6)	18	Adapting Vision-Language Models for Precision Agriculture: A Study on Crop Segmentation based on UAV Remote Sensing Data Yuhui Bie, Guowei Xu and Yaojun Wang
16:10-16:30 MT (GMT-6)	19	Crop Classification in UAV Remote Sensing Images Using Segment Anything Model Guowei Xu, Yuhui Bie, Na Wang and Yaojun Wang
16:30-16:50 MT (GMT-6)	51	Retrieval of Water Transparency in Inland Lakes and Reservoirs Based on High-Resolution Satellite (GF-2) and UAV Hyperspectral Data Kai Zhang, Xiaoyu Zhang, Binbin Jiang, Yuchen Zhu and Mengqi Wang
16:50-17:10 MT (GMT-6)	55	Effect of unbalanced Training Data in YOLO Models for Palm Tree Detection from UAS Images Anjin Chang, Tayyibe Gunduz and Jinha Jung
17:10-17:30 MT (GMT-6)		Q/A and Discussion
Coffee Break		

G2.4.2: Student Competition 2

Session Chair: Ruixin Yang (ryang@gmu.edu)

Tuesday, July 8, 2025

15:50 – 17:20 MT (GMT-6)

Location: CG1-2126

Zoom Link: <https://ucar-edu.zoom.us/j/93816265715?pwd=eelDjnZa5lWkG5wsTikTxdQmLsK9Qe.1>

Time	ID	Title & Authors
15:50-16:10 MT (GMT-6)	22	Clustering Climate: A Machine Learning Approach to Microclimate Zoning and Crop Suitability Zeynep Kara, Oğuzhan Aybar, Meriç Yücel and Burak Berk Üstündağ
16:10-16:30 MT (GMT-6)	32	GDC-3D: A Geospatial Data Cube for Efficient Management and Analysis of 3D Spatial Data Binwen Wu, Peng Yue, Ruixiang Liu, Kaixuan Wang and Lianlian He
16:30-16:50 MT (GMT-6)	54	A Phenology-Driven and Domain-Adaptive Framework for Mapping Plastic-Mulched Farmland Using Sentinel-2 Time Series Jiayu Xu and Lizhen Lu
16:50-17:10 MT (GMT-6)	66	WPS-Compliant End to End Interactive Platform for Road-side Field View Crop Classification Hanxi Li and Liping Di
17:10-17:30 MT (GMT-6)	52	Integrated Remote Sensing and Machine Learning for Robust Tillage Detection in Cloud-Prone Regions Xinyu Wang

Breakout Session Schedule (Day 3)

G3.3.1: Agricultural Big Data Processing and Storage

Session Chair: Xinyu Wang (xwang72@gmu.edu)

Wednesday, July 9, 2025

14:00 – 15:30 MT (GMT-6)

Location: CG1-3131

Zoom Link: <https://ucar-edu.zoom.us/j/95814209825?pwd=yEVa3t6F8TheUvAnR75E55NacIzqIE.1>

Time	ID	Title & Authors
14:00-14:20 MT (GMT-6)	12	A data organization approach in geospatial data cube based on variable spatial grids Yongyi Mi, Ruixiang Liu and Peng Yue
14:20-14:40 MT (GMT-6)	39	NASA Giovanni: Global Meteorological Datasets at your Fingertips Zhong Liu, Suhung Shen, Peisheng Zhao, Eugene Yu, Liping Di and Mahabal Hegde
14:40-15:00 MT (GMT-6)	42	Developing Cloud-base ArcGIS Image Services on NASA Earthdata GIS (EGIS) Peisheng Zhao, Eugene Yu, Allison Alcott, Zhong Liu, Suhung Shen, Liping Di and Mahabal Hegde
15:00-15:20 MT (GMT-6)	43	Rapid Agricultural Impact Mapping of Hurricanes Using Open-Source Tools Eugene Yu, Mahabaleshwara Hegde, Liping Di, Peisheng Zhao, Zhong Liu and Suhung Shen
15:20-15:30 MT (GMT-6)		Q/A and Discussion
Coffee Break		

G3.3.2: Theories, Methodologies and Algorithms in Agromatics 2

Session Chair: Ziao Liu (zliu23@gmu.edu)

Wednesday, July 9, 2025

14:00 – 15:30 MT (GMT-6)

Location: CG1-2126

Zoom Link: <https://ucar-edu.zoom.us/j/93816265715?pwd=eeIDjnZa5lWkG5wsTikTxdQmLsK9Qe.1>

Time	ID	Title & Authors
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14:00-14:20 MT (GMT-6)	37	A Hierarchical Fusion Framework for Enhancing High-Resolution Multispectral Data from Sentinel-2 and GF-2 Imagery Yuchen Zhu, Xiaoyu Zhang, Binbin Jiang and Kai Zhang
14:20-14:40 MT (GMT-6)	45	Fine-Tuning Foundational Models for Downscaling Precipitation and Temperature Data in Agriculture Eugene Yu, Mahabaleshwara Hegde, Liping Di, Peisheng Zhao, Suhung Shen, Zhong Liu and Armin Mehrabian
14:40-15:00 MT (GMT-6)	47	The Influence of Different Bandwidths on Crop Canopy Chlorophyll Content Estimation Using Vegetation Index Yizhi Wang and Liang Liang
15:00-15:20 MT (GMT-6)	63	An Algorithm to Improve Intra-Seasonal Irrigation Scheduling and the Value of Digital Agriculture Technology Pedro Diaz Cachay, Juan Sesmero, Liping Di, Haishun Yang, Xiaomao Lin, Cenlin He and Jenny Du
15:20-15:30 MT (GMT-6)		Q/A and discussion

G3.4.1: Land Cover Mapping and Land Change Science/Conference Summary and Discussion

Session Chair: Hanxi Li (hli51@gmu.edu)

Wednesday, July 9, 2025

15:50 - 17:20 MT (GMT-6)

Location: CG1-3131

Zoom Link: <https://ucar-edu.zoom.us/j/95814209825?pwd=yEVa3t6F8TheUvAnR75E55NaclzqIE.1>

Time	ID	Title & Authors
15:50-16:10 MT (GMT-6)	17	All-Season Plastic-Covered Cultivation Mapping Using Time-Series Remote Sensing Data Chang Zhou, Jingfeng Huang and Zhou Shi
16:10-16:30 MT (GMT-6)	24	Optimizing Spatial Resolution and Field Size for Automated Classification of Multiple Crop Types within Single Fields Cecilia Masemola and Wessel Bonnet
16:30-16:50 MT (GMT-6)	59	Super-resolution mapping of plastic-mulched farmland from Sentinel-2 time-series data by an adapted transformer model Lizhen Lu, Jingwen Gu, Yuqi Du, Jiayu Xu and Yunci Xu
16:50-17:30 MT (GMT-6)		Conference Summary and Discussion

G3.4.2: Student Competition 3

Session Chair: Ruixin Yang (ryang@gmu.edu)

Wednesday, July 9, 2025

15:50 - 16:50 MT (GMT-6)

Location: CG1-2126

Zoom Link: <https://ucar-edu.zoom.us/j/93816265715?pwd=eelDjnZa5lWkG5wsTikTxdQmLsK9Qe.1>

Time	ID	Title & Authors
15:50-16:10 MT (GMT-6)	5	Deep Learning-based Remote Sensing Image Resolution Enhancement: A Comparative Study Bradley Yao and Liping Di
16:10-16:30 MT (GMT-6)	6	Near-Real-Time County-Level Monitoring of Soybean and Corn Harvest Yields Using Satellite Imagery Bosen Shao, Liping Di, Chen Zhang, Hui Li and Ziao Liu
16:30-16:50 MT (GMT-6)	26	Accelerating Agro-Geoinformatics ML with GeoParquet Gavin Middleton



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