"AI for Natural Climate Solutions"
Yale Climate Day

YCNCC Spring 2025 Symposium
May 8 & 9
195 Prospect St, New Haven, CT

Thursday, May 8, 2025

2:00 – 2:45   **Coffee and Registration**

2:45 – 3:00   **Welcome and Introduction**

           Liza Comita and David Bercovici, YCNCC Co-Directors

3:00 – 4:40   **Fifteen-Minute Talks: AI -- Foundations to Application**

1. **Design for sustainable biochar and AI**

   Yuan Yao, Associate Professor at Yale School of the Environment

2. **AI for natural methane (AI4NM) working group: A community effort to harmonize natural methane datasets using knowledge-guided machine learning**

   Youmi Oh, Research Scientist at NOAA

3. **Low-cost soil sensing with wi-fi and machine learning**

   Jian Ding, Ph.D Candidate in Computer Science at Yale University

4. **AI-assisted new discoveries in soil carbon cycle: Mechanisms and predictions toward global sustainability**

   Feng Tao, Schmidt AI for Science Postdoctoral Fellow at Cornell University

5. **Machine learning for OAE uncertainty and site selection**

   Lucas Gloege, Associate Research Scientist at YCNCC

4:40 – 5:00   **Fifteen-Minute Talk: Industry Applications of AI for Natural Climate Solutions**

1. **AI in agriculture- and forest-related supply chains**

   Andrew Wilcox, Director, Business Operations Sustainability at Unilever

5:00 – 6:30   **Reception and Poster Session**

Friday, May 9, 2025

8:30 – 9:00   **Breakfast and Registration**

9:00 – 10:00   **Fifteen-Minute Talks: AI Innovations in Modeling**

1. **AI models and remote sensing for soil carbon measurement**

   James Kellner, Professor at Brown University; Chief Scientist at Perennial

2. **Monitoring forest restoration projects as natural capture solutions**

   Arthur Ouaknine, Postdoctoral Researcher at McGill University

3. **An approach for reliably leveraging machine learning predictions in subsequent statistical analyses**

   Dan Kluger, Postdoctoral Fellow at MIT

10:00 – 10:30   **Break**

10:30 – 11:15   **Panel: AI Innovations in Modeling**

   Moderator: Elizabeth Yankovsky, Assistant Professor at Yale University

11:15 – 12:00   **Fireside Chat: Funder Perspectives on AI for Natural Climate Solutions**

   Kelly Levin, Chief of Science at Bezos Earth Fund, and Kyle McEneaney, Director, Climate Tech at the Schmidt Family Foundation

   Moderated by Pete Raymond, Senior Associate Dean of Research and Oastler Professor of Biogeochemistry at Yale School of the Environment

12:00 – 1:00   **Lunch**

1:00 – 2:00   **Fifteen-Minute Talks: Industry Applications of AI for Natural Climate Solutions**

1. **Foundation geospatial AI for natural carbon capture**

   Avery Cohn, Senior Partner at Ode

2. **AI-enabled monitoring and implementation for large-scale soil carbon sequestration projects**

   Aadith Moorthy, Founder and CEO at Boomitra

3. **Forest carbon monitoring: Mapping forest change with nanosatellites and AI**

   Christopher Anderson, Lead Scientist at Planet Labs

2:00 – 2:30   **Fifteen-Minute Talks: AI Applications for MRV**

1. **AI-assisted measurement, monitoring, reporting, and verification (MMRV) for carbon dioxide removal (CDR) strategies**

   Yiqi Luo, Professor at Cornell CALS

2:30 – 3:00   **Break**

3:05 – 3:45   **Fifteen-Minute Talks: AI Applications for MRV (continued)**

2. **An AI-integrated dynamic river network for monitoring downstream carbon flux from enhanced weathering**

   Shuang Zhang, Assistant Professor at Texas A&M

3. **Supporting ocean carbon MRV with sparse data and machine learning**

   Galen McKinley, Professor at Columbia University

3:45 – 4:30   **Panel: AI Applications for MRV**

   Moderator: Sara Kuebbing, Research Scientist at YCNCC

4:30 – 4:45   **Closing Remarks**

   Liza Comita and David Bercovici, YCNCC Co-Directors