Session Program

28 September 2026 to 1 October 2026

Integrative Social-Ecological Knowledge Systems: Conceptual and Computational Foundations for Ecological Synthesis

Paper talks

CIP, E010
Inselplatz 5 07743 Jena

Monday 28 September

15:30

Paper talks: Session I: Place-based knowledge systems

Session | **Location:** CIP, Oak

15:30–15:45 **social–ecological networks for biodiversity and ecosystem services**

15:45–16:00
Bridging Knowledge Systems for Adaptive Social–Ecological Governance: Synthesizing Scientific, Indigenous, and Local Knowledge in India's Biodiversity Hotspots

16:00–16:15
A biocultural framework for categorising human-freshwater fauna interactions for social-ecological integration

16:15–16:30
Contextualizing Ecological Synthesis: Indigenous Knowledge, Stewardship, and Environmental Archives

16:30–16:45
Integrating Spatial Analysis and Community Knowledge for Evidence-Based Forest Landscape Restoration in Southern Nigeria

16:45

Tuesday 29 September

10:30

Paper talks: What works where

Session | **Location:** CIP, E010, Inselplatz 5 07743 Jena

10:30–10:45 **Restoration ecology as a poietic practice**

10:45–11:00
Context-dependent coexistence of social parasites: fungus-growing ant communities as a case study

11:00–11:15
Challenges and options for synthesis and extrapolation for ecosystem restoration outcomes at landscape level

11:15–11:30
The TripleA Principle: Actionability, Applicability, and Auditability for Actionable Knowledge in Post-FAIR Infrastructures

11:30–11:45
Theoretical Syntheses based on model use: How to go from "snapshots" of current theories to "films" of how theories develop.

11:45

Wednesday 30 September

10:35

Paper talks: Session III: Representing causality

Session | **Location:** CIP, Oak

10:35–10:50
TIB Knowledge Loom: Publishing Analysis-ready Scientific Knowledge to Accelerate Synthesis Research

10:50–11:05
Navigating research diversity in ecological synthesis: the role of openness and machine actionability

11:05–11:20 **FAIR, CLEAR, and Causal: A Semantic Framework for Ecological Knowledge Synthesis**

11:20–11:35 **EcoGraphRAG: Causal Evidence Graphs for Grounded Ecological Synthesis**

11:35–11:50
Evaluating LLMs for Causal-Evidence Auditing in Ecology Literature: A Case Study on Biotic Resistance to Plant Invasions

11:50

Thursday 1 October

10:35

Paper talks: Session IV: Machines in the Loop

Session | **Location:** CIP, Oak

10:35–10:50
A global synthesis of herbivorous crop pests and their natural enemies using large language models

10:50–11:05 **LLM-based generation of spatiotemporal knowledge graphs for ecological synthesis**

11:05–11:20 **Knowledge-Guided Species Classification with Multimodal Large Language Models**

11:20–11:35
The LIB Open Knowledge Space: A semantic architecture for FAIR, CLEAR, and AI-ready biodiversity knowledge

11:35–11:50
You ask iAnswer: How Knowledge Graphs and LLMs combine in an accessible and reliable Question-Answering tool for Ecological Research Data

11:50–12:05 **Talking to Ontologies: Making Scientific Knowledge Accessible through MCP**

12:05