

allometry and classes, and the creation of a database to support local environmental monitoring efforts in the Federal States of Saxony and Saxony-Anhalt in Germany. The symposium will bring together experts from various fields to discuss DeepTrees updates, community results, and future use cases for the system in biodiversity assessment, urban forest management, and ecosystem services modeling.

Symposium Schedule

9:00h - 9:30h

Opening Remarks + Keynote

Keynote speaker: Hannes Feilhauer

Title: Tba

9:30h - 10:15h

Session 1: DeepTrees Introduction and Updates (15-mins each)

This session will focus on recent advancements in DeepTrees, including updates on workflows, tools, and methodology improvements. Talks that highlight:

- Innovations in deep learning models for tree detection and monitoring.
- Workflow standardization and methods for aggregating tree data.
- New findings in tree allometry and tree class analysis using DeepTrees tools.

10:15h - 10:45h

Break

10:45h - 12:15h

Session 2: Results from the Community (15-20 mins each)

Open for abstract submissions from participants.

This session will highlight community-driven results, with a particular focus on how researchers, city planners, and environmentalists are their own work. We encourage submissions for:

- Case studies in urban forestry, biodiversity, or ecosystem management.
- Results of studies involving remote sensing and or machine learning for tree/forest monitoring.
- Comparative analyses of different deep learning models (e.g., CNN, UNet) used for tree monitoring.

12:30h - 13:30h

Lunch Break

13:30h - 14:30h:

Session 3: Potential Use Cases of DeepTrees (15-20 mins each)

Open for abstract submissions from participants.

This session invites forward-looking presentations discussing the real-world applications of DeepTrees. Potential speakers are encouraged to submit sessions on:

- Enhancing urban forestry management and ecosystem service modeling using tree crown data.
- Potential of DeepTrees for improving biodiversity assessments and carbon storage estimations.
- Innovative and novel use cases for DeepTrees in environmental monitoring and conservation projects.

14:30h - 15:00h

Group Discussion Buffer

15:00h - 16:00h:

Workshop: Hands-on with DeepTrees Workflows

Interactive session on using DeepTrees python package for tree detection and analysis. Attendees will engage with real data to explore tree monitoring processes using our code library.

1600h - 16:15h:

Closing Remarks and Future Directions

Feedback? Contact taimur.khan@ufz.de (mailto:taimur.khan@ufz.de)