Master Thesis: Spatial scaling of forest structural metrics in different forest types

Earth Observation for Ecosystem Management

Start Date: *Spring / Summer 2025*

Description of Project:
In this thesis, you will calculate forest structural metrics such as the plant area index or canopy closure, based on terrestrial laser scanning data conducted in different forest types in the national parks of Berchtesgaden, Germany and Bosland, Belgium. As forests show different characteristics in their structure at different spatial scales, it is worth taking a closer look onto the link of spatial scaling of these metrics. The goal is to develop a spatial scaling model of forest structural metrics which can be used to link finely scaled terrestrial laser scanning data to coarser scaled satellite data.

Research Question:
How do forest structural metrics scale spatially in different forest types?

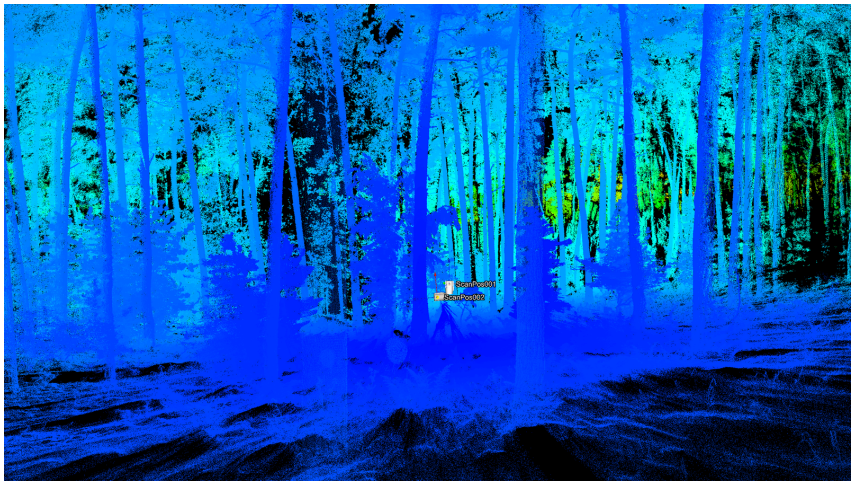
Objectives:

- *Coregister terrestrial laser scans*
- *Develop a model of spatial scaling on forest structural metrics*

You can find additional information about the WEAVE project on the fusion of microclimate data and terrestrial laser scanning data here:

WEAVE

Contact:
Andreas Hanzl
andreas.hanzl@tum.de



Terrestrial laser scan of a research forest