

Master's Thesis

Topic: Climate Data Analysis

for students of Forestry, IngÖk. NaLa, SRM etc.



Background:

Forest edges, as transitional zones, strongly shape the microclimate and thus influence forest health, biodiversity, and stress responses. Multi-layered, structurally complex forest edges can protect the forest interior from heat and drought, whereas simply structured edges tend to intensify microclimatic extremes. However, how different forest edge structures influence these microclimatic effects is still insufficiently understood.

Methodology and Data Basis:

- Data analysis, interpolation, modeling, and visualization of climate data
- Climate data provided as CSV tables from measurements since April 2025 (continuous 30-minute intervals)
- Air and soil temperature, air and soil moisture, solar radiation intensity
- Weather stations and open-area reference stations
- Forest structure data from field surveys and remote sensing

Research Question:

Which microclimatic effects can be identified for (different) forest edge structures?

Requirements:

Solid knowledge of R (statistics, modeling), Interest in climate and data analysis, Interest in forests and forest structure.

Zeitraum:

From now on / February 2026 after first meeting

Interested?

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