

Workshop Program: Regionalization of forest stand variables using satellite images

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0. Welcome & Course Setup

- 0. Introduction
- 1. Course Objectivities
- 2. Software & Data structures

LAB0: Installation of R and QGIS software, data transfer

3. Processing of the field inventory data

- a. Coordinate transformation
- b. Conversion from per plot to per ha values
- c. Plausibility & outlier checks
- d. Creation of the shape file with the geometries of the field plots

Lab01: Preparation of NFI data

4. Pre-Processing of the satellite images

- e. [Geometrics Corrections]
- f. Radiometric Corrections
- g. Topographic- Normalization
- h. Image Enhancement

Lab02: Image pre-processing

5. Compiling a training dataset

- i. Extracting pixel values within the field plot areas
- j. Analyzing the trainings dataset

Lab03: Compilation of the training data set

6. Model building

- k. Feature selection
- l. Model type selection
- m. Training the prediction model

Lab04: Building the prediction model

7. Prediction & Validation

- n. Predicting the target variable for all pixel
- o. Creating a new map
- p. Analyze the model quality