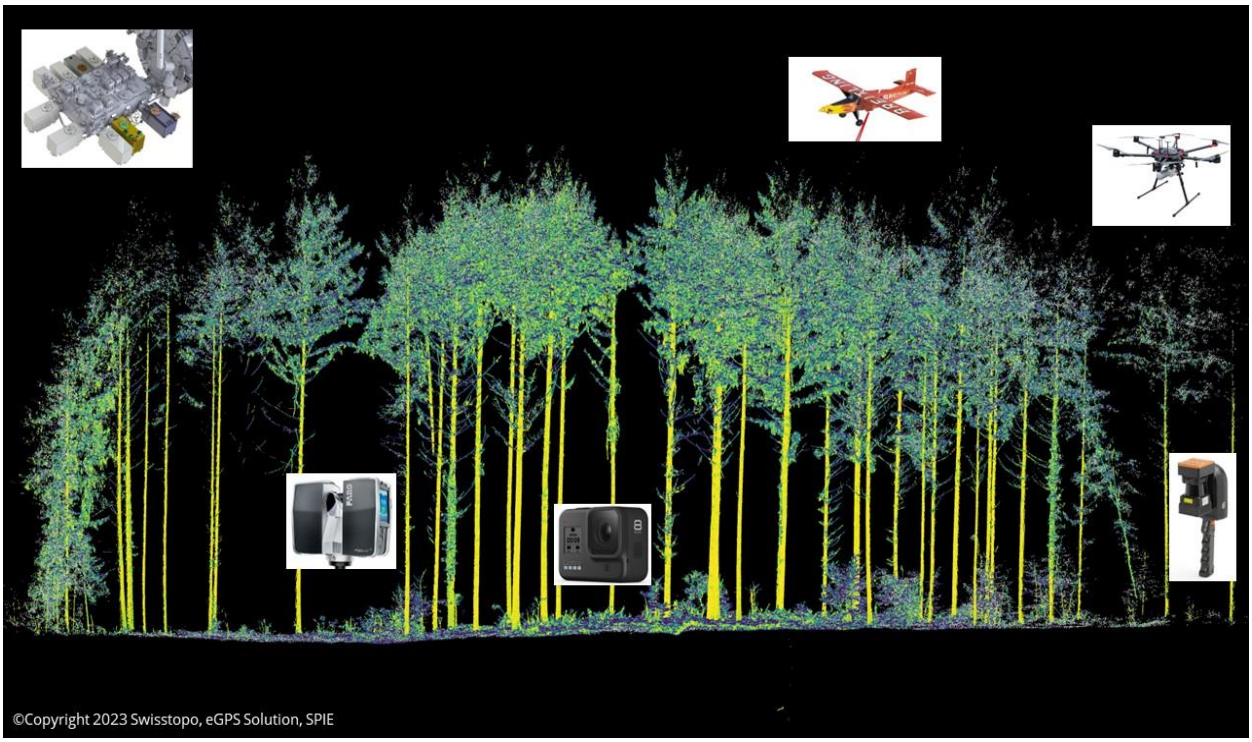
Swiss Federal Institute for Forest, Snow and
Landscape Research WSL
Zuercherstrasse 111
8903 Birmensdorf
Switzerland

Remote Sensing Lectures "Point clouds for forest applications"

WED 10 May 2023, 9-12 am CET



The advent of LiDAR enabled the acquisition of 3D point clouds in forests and a detailed 3D analysis of forest parameters at different scales. In this webinar we will have five in-house and five external presentations from renowned institutes. Besides state-of-the-art applications in forests, new methods, techniques, and processing of 3D point clouds from ALS, TLS, MLS, and close-range photogrammetry will be given.

Zoom link: **sent by email** (a few days before the webinar)

Schedule:

9:00 **Lars Waser,** Remote sensing group, WSL
Welcome, Introduction

9:10 **Felix Morsdorf**, University of Zurich, Remote Sensing Laboratories, EXT
4D point clouds – towards physically-based monitoring across scales

9:25 **Stefano Puliti**, Norwegian Institute of Bioeconomy Research NIBIO, EXT
Deep learning for dense LiDAR data in forestry applications

9:40 **Moritz Bruggisser**, Remote sensing group, WSL
Countrywide characterization of forest edge structure from airborne laser scanning data

9:55 **Lisa Mandl**, Technical University Munich, EXT
The potential of GEDI to characterize mountain forest structure across scales

10:10 **Hristina Hristova**, Scientific Service NFI, WSL
Spherical Stereo Videogrammetry for Point Cloud Generation in Forest Environment

~10:25 Coffee break

10:40 **Kim Calders**, Ghent University, EXT
Digital twins for understanding forest disturbances and recovery from space

10:55 **Daniel Kükenbrink**, Remote sensing group, WSL
How robust is mobile laser scanning for forest inventory applications – a Swiss case study

11:10 **Nataliia Rehush**, Scientific Service NFI, WSL
A sensor-agnostic approach for tree position and DBH retrieval from 3D close-range remote sensing data

11:25 **Aline Bornand**, Scientific Service NFI, WSL
TLS point clouds for individual tree volume estimation

11:40 **Henrik Persson**, Swedish University of Agricultural Sciences SLU, EXT
Proximate forest remote sensing using radar

11:55 Closing

See you there! Lars Waser