

Individual tree point clouds and tree measurements from multi-platform laser scanning in German forests. Weiser et al.

General comments

The paper outlines a large, interesting and well-structured data set derived from ALS, ULS and TLS point clouds acquired from twelve forest plots in southwestern Germany. These LiDAR derived data are supported by traditional forest measurements. The whole dataset is available for download representing a seldomly seen large scale open access dataset encompassing LiDAR data in central Europe.

The text is well written using a high standard of (American) English in the conventional scientific style, citations are both relevant and correctly presented.

In my opinion this manuscript can be published with minor revisions specific comments and suggestions of technical corrections are given below.

Specific comments

There is a lack of information about the specific forest stands in regards to their management history, composition and structure. This is important for the end user to know in order to make comparisons within and between datasets for comparability. Within this idea, some basic stand-based metrics for each of the sample plots might be of interest for the reader (species mixture, basal area etc.) such information can be included in a supplementary data table and will aid the end user in determining which data sets (study plots) to use, maybe in conjunction with their own data.

Figure 4 nicely illustrates the effect of leaf weight on branch position in the ULS data (blue vs. pink points) – this could be highlighted in a comment for added value.

Line 226/227 “For all trees, the quality of the fit was controlled visually.” Please briefly expand on this, with what threshold, what was done if the ellipse was not fitting? Visual examination is very subjective, can consistency be assured? The users of the data must understand how this was carried out.

Line 280: was there a threshold used to discard trees? More detail needed.

Technical corrections

Splitting of words between lines – this might be a journal/template issue. While acceptable in German text But the splitting of words in English can be considered bad form. This is particularly apparent in line 152/153 across pages 9 and 10 overlap-ping.

Line 3/Line 34: Please also define UAV as “unmanned aerial vehicle” in the first instance, later defined in Line 456 as “uncrewed” this is better in a gender neutral usage.

Line 24: consider changing “The tree crowns’ geometries....” to “The geometry of tree crowns can then....”

Line 42: Southwest → southwest, not a name of a place or region (please check the remainder of the document).

Line 54: consider changing to “the creation of 3D...”

Line 56: consider changing to “the development of...”

Line 222: slanted → leaning

Line 225: we fit an ellipse → an ellipse was fitted

Line 238: Concave → Convex

Line 320: change to read “the good alignment of *the data sets*.”

Line 324: 1 -ha → 1 ha

Line 342: 5 iterations → five iterations (please check the rest of the document and change accordingly e.g. line 353).

Figure 10: attention to capitalisation of axis labels

Caption fig 10: overlap with page number

Line 466: like → Such as