

**Király, G. & Brolly, G. (2006): Estimating forest stand parameters applying airborne laser scanning and QUICKBIRD images. Proc. of the Workshop on 3D Remote Sensing in Forestry, 14th-15th Feb 2006, Vienna pp. 90-101.**

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Short reference: Király & Brolly (2006)

First author: Király Géza

Year: 2006

**Abstract**

The main purpose of this study is analysing the ability of stand height evaluation based on ALS datasources captured in leaves-off state of deciduous stands. Capturing in leaves-off state is favourable to calculate DTM, but the less for analysing vegetation canopy. Although significant underestimation is expected in stand heights, it is necessary considering the opportunity to use the same dataset for extracting DTM and stand properties due to financial reasons. Hierarchic Robust Filtering was used to obtain DTM, sampling of raw data was used to assess tree tops. Data fusion of ALS and a QuickBird image from the vegetation season makes crown-parameters estimation possible. The segmentation of the very high-resolution satellite image and a geometric evaluation of the segments combined with the ALS data were performed. The photogrammetric assessment of a bundle block adjusted scanned aerial photographs are also performed for automatic digital canopy model extraction. The traditional digital photogrammetric evaluation, and national forest inventory data are used for accuracy assessments.

**Notes**

Forestry, Laser scanning, Quickbird, parameters estimation, erdőszet, faállomány magasság, paraméter becslés

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