



## **The deduction of forest stand attributes by the means of microwave data – a contribution to assess landscape functionality?**

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Steadily rising number of satellites in space equipped with different microwave instruments result in a fast-growing range of microwave data. Meanwhile data in X-, C- and L- band, in different polarisations and shorter than ever time steps is operational and even commercial available. Because L-band data with deeper penetration in forest stands and X-band data with a very high spatial resolution is disposable, the answer for the calculation of biomass even for forest of middle Europe seams to be tangible.

It seams to be about the time to investigate in the question if these new data sets are also useful for the calculation of further, more structural variables in woody areas that can be interpreted as indicators for the functional roles of forests within the landscape. In our case study at the Idarwald, Southwest Germans, we used a multi data set, consisting out of LIDAR, SAR and multispectral data to give and overview on the opportunities offered by microwave data or the fusion with other data types. As far as possible this results have been assigned in to indicators relevant for landscape function analysis (LFA).