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The goal of the session

Forest management and conservation is currently facing many challenges. Climate change is leading to enormous changes in the growing conditions for trees. Many species are under severe pressure from periodic droughts or the effects of high temperatures, causing them to die or become severely weakened, increasing their vulnerability to damaging impacts from other organisms. Often, i.e.: bark beetle infestation processes start with a few dozen trees. It is therefore important to detect such phenomena at an early stage. This in turn requires precise data and methods. More precise methods for detecting dying or dead trees will help forest managers to make optimal and timely decisions.

The goal of this session is to present work on assessing the health of individual trees using a variety of remote sensing data obtained from satellites or airborne platforms. The increasing availability of different types of spatial data increases the possibilities for the operational application of remote sensing in practise. This requires the development of new methods that integrate many different data sets. The platform, device and frequency of data collection are of great importance for accuracy, method development and implementation. Preference will be given to methods that have already been applied on a large scale, i.e. methods that can be transferred and proposed to forestry practise.

Potential Topics

- Single tree based mortality detection and classification methods/algorithms
- Temporal forest degradation and mortality monitoring
- New data and tools for forest degradation and mortality inventory and monitoring
- New methods of multitemporal and multisource data for forest degradation and mortality monitoring
- Large scale implementation of forest degradation and mortality monitoring methods