

Kolloquium des Institutes für Landschaftsökologie WS 19/20

Dienstags 18 Uhr c.t.
Hörsaal Heisenbergstr. 2

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Remote sensing and spatial modeling in landscape ecology

Many research tasks in landscape ecology aim at analysing patterns in space or in space and time. However, data acquired in the field are usually only limited point data that don't allow studying spatio-temporal patterns. Here remote sensing can be used to fill the gap as it provides information in a continuous way. However, many ecological phenomena are very complex and difficult to derive from remote sensing data. A major challenge is therefore how remote sensing information can be "translated" to ecologically relevant information.

This problem is one of the primary research objective of the new working group "Remote Sensing and Spatial Modeling" at ILÖK. Our aim is to model ecological variables in space and time based on the combination of limited field data, remote sensing and machine learning as a modeling tool. In this talk I will give some examples of applications dealing with different topics in the context of landscape ecology but I will also discuss fundamental (methodological) challenges in the application of machine learning in remote sensing.