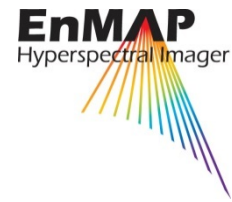


## Combination of empirically and physically based modeling approaches for habitat- and vegetation-monitoring

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### Abstract:

Process-oriented and empirical modeling approaches in imaging spectroscopy are partly complementary in terms of limitations and potentials. Statistical models, if set up properly, allow for accurate assessments even in situations where process understanding is limited. In contrast, physically based approaches, e.g. radiative transfer models (RTMs), are more valuable for gaining knowledge about the processes leading to the observed canopy reflectance. Their transferability is considered superior, since they do not require extensive field surveys for model calibration (there is still need for validation, though). The current project focuses on the integration of both techniques for the mapping of plant traits using hyperspectral data. Based on these traits we aim at mapping plant functional types (PFT) and subsequently habitats featuring characteristic combinations of PFT.



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**EO Data Source:** EnMAP, Sentinel-2, HySpex, HyMap

**Support Program:** PhD Program for EnMAP utilization preparation

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[http://www.ifgg.kit.edu/vegetation/projekte\\_961.php](http://www.ifgg.kit.edu/vegetation/projekte_961.php)