

**Borg, Daedelow, Johnson (ed.)**

**From the Basics to the Service**

**5<sup>th</sup> RESA Workshop**

# Content

## Preface (RESA Project)

RapidEye Science Archive: Remote Sensing Data for the German Scientific Community.....	3
<i>E. Borg, H. Daedelow, M. Apel, K.-D. Missling</i>	

## Full Reviewed Paper

Forest tree species identification using phenological stages and RapidEye data: a case study in the forest of Freising (Project ID: 317).....	21
<i>A. Elatawneh, A. Rappl, N. Rehush, T. Schneider, T. Knoke</i>	

Assessing the required temporal frequency of optical EO acquisitions for the modelling of winter wheat yield in Northern Germany (Project ID: 345).....	39
<i>T. B. Hank, T. Frank, H. Bach, K. Spannraft, W. Mauser</i>	

Improving agricultural land use mapping in West Africa using multi-temporal Landsat and RapidEye data (Project ID: 493).....	57
<i>G. Forkuor, C. Conrad, T. Landmann, M. Thiel, E. Zoungrana</i>	

Mapping habitat diversity from multi-temporal RapidEye and RADARSAT-2 data in Brandenburg, Germany (Project ID: 451).....	73
<i>S. Erasmí, G. Riembauer, C. Westphal</i>	

Object-Based Analysis of Multi-Temporal RapidEye Images for Landscape Monitoring (Project ID: 441).....	91
<i>W. Hou, U. Walz</i>	

Littoral bottom mapping in lakes using multitemporal RapidEye data (Project ID: 455_2).....	107
<i>S. Rößler, P. Wolf, T. Schneider, A. Melzer</i>	
Application of RapidEye data for the derivation of urban Geo-information products - an overview of first results (Project ID: 340).....	129
<i>H. Taubenböck, T. Esch, M. Wurm, W. Heldens</i>	
Analyzing the seasonal relations between <i>in situ</i> fPAR / LAI of cotton and spectral information of RapidEye (Project ID: 461).....	143
<i>S. Lex, C. Conrad, G. Schorcht</i>	
Validation of Leaf Area Index calculated on RapidEye imagery against <i>in situ</i> measurements in Rur Catchment, Germany (Project ID: 462).....	157
<i>M. Ali, C. Montzka, A. Stadler, H. Vereecken</i>	
Large Scale Multi Seasonal Land Cover Mapping in the South Siberian Kulunda Steppe with RapidEye data (Project ID: 501).....	173
<i>S. Hese, H.-J. Fischer</i>	
Change Signature Analysis and Rapid Mapping Concepts for Tsunami Flooded Coastal Areas (Project ID: 483).....	195
<i>S. Hese, T. Heyer</i>	
Evaluation of the anisotropy factors on aquatic test sites caused by RapidEye off-nadir data acquisition with the Mobile Goniometric System (MGS) (Project ID: 455_1).....	221
<i>P. Wolf, S. Roessler, T. Schneider, A. Melzer</i>	

## Full Non-Reviewed Paper

Automated Landslide Detection Using Multi-temporal RapidEye Data (Project ID: 424).....	239
<i>R. Behling, S. Roessner, K. Segl, H. Kaufmann</i>	
Water Body and Tree Line Change Mapping (Project ID: 473).....	259
<i>M. Urban, N. Rakityanskaya, S. Hese</i>	
Uncertainties of LAI estimation from satellite images due to atmospheric correction (Project ID: 502).....	271
<i>T. Mannschatz, P. Dietrich</i>	

## Extended Abstracts

DeMarine-Environment – Suitability of RapidEye Data for Monitoring of the Wadden Sea (Project ID: 290).....	291
<i>K. Stelzer, M. Gade, W. Adolph, J. Kohlus</i>	
Bi-temporal land cover classification for the hydrological understanding of a large dryland river in the Brazilian Semiarid (Project ID: 387).....	295
<i>A. C. Costa, S. Foerster, A. Bronstert, J. C. de Araújo, H. A. de Q. Palácio</i>	
Estimation of the Seasonal Leaf Area Index in an Alluvial Forest Using RapidEye-Based Vegetation Indices (Project ID: 469).....	299
<i>A. Tillack, A. Clasen, M. Förster, B. Kleinschmit</i>	

<b>Remote Sensing Estimation of Wood Biomass within Brandenburg forests in the Euroregion POMERANIA, using Rapid Eye Data (Project ID: 491).....</b>	<b>305</b>
<i>S. Kärger, S. Klinner, A. Janzen</i>	
<b>Using MaxEnt for partially supervised classification of agricultural land cover (Project ID: 490).....</b>	<b>311</b>
<i>B. Mack, B. Waske</i>	
<b>Contextual and Infrastructure linked Spectral Oilspill Mapping in West Siberia (Project ID: 472).....</b>	<b>315</b>
<i>S. Hese, R. Michaelis</i>	
<b>Superpixel segmentation for object-based land use / land cover classification of RapidEye data (Project ID: 498).....</b>	<b>323</b>
<i>J. Stefanski, B. Mack, B. Waske</i>	