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MONITORING CONCEPTS FOR COASTAL AREAS

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Abstract. Coastal areas are characterized by high spatial and temporal variability. Early detection of changes at early stages, enabling rapid countermeasures to mitigate or minimize potential damage, becomes necessary. In this paper, we focus on two monitoring tasks: the automatic classification and mapping of habitats. Our concepts are solely based on airborne laser scanning information in coastal areas. For the first task, we generate a digital terrain model and analyse the dynamic of an island by comparing the DTMs of different epochs. For a deeper understanding of the habitat composition in coastal areas, we classify the point cloud data with an approach based on Conditional Random Fields. From the classified point cloud data, ground and bed objects are derived afterwards. We evaluate our approaches on two test sites.

[Conference Paper](#) (PDF, 866 KB)

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