Helmholtz Imaging Annual Conference 2024



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## Trustworthy Unsupervised ML Model for Drawing Coastlines and Creating Benchmark Dataset

Tuesday 14 May 2024 10:15 (15 minutes)

Automatic drawing of coastlines with satellite imagery is a crucial factor in detection coastline shifts due to global climatic changes. On the other hand, unavailability of labelled information poses a challenge. We propose a trustworthy unsupervised AI solution to automatically draw coastlines in the Baltic sea area to create a 'pre-labelled'dataset, which clearly delineates the boundary pixels between sea and land. We have applied state-of-the art methods to find the optimal number of clusters to understand the unknown semantic classes in the dataset.

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Session Classification: Thematic Session: Image Analysis - part I

**Track Classification:** Image Analysis (focus on representation learning and foundation models): Thematic focus: Image Analysis