

2024 Workshop-Seminar of the AI-Cluster in PoF IV Subtopic 2.4

„Methods, Applications and Services“

25.06.2024, online, 9-12h

<https://geomar-de.zoom-x.de/j/68944861303?pwd=BFiGh7jMA4qvJ6lr4QzkbVqh3eTSJ.1>

09:00 – 09:05

Willi Rath (GEOMAR) Welcome

09:05 – 10:15

Seminar Talks I (10 minutes talk + 2 discussion)

Akil Hossain (AWI): MOSAiC-SEBai: Leveraging MOSAiC and station observations to bias-correct the surface energy budget in reanalysis

Jan Saynisch (GFZ): Helmholtz AI Project CMILE - Latent space and smile vectors for aggregation and exploration of large climate data sets

Yannick Wölker (GEOMAR): SUSTeR: Sparse Unstructured Spatio Temporal Reconstruction on Traffic Prediction

Mike Sips (GFZ): XAI: News from ClarifAI: Recent developments and new ideas.

Piers Larkman (AWI): Ai-assisted effective data collection in 2D chemical imaging on polar ice cores

Judith Fischer (GEOMAR): Overview of the first 1.5 years of the GEOMAR Data Science Unit

10:15 – 10:30

Talking coffee break

10:30 – 11:30

Seminar Talks II

Hannes Gelbhardt (AWI): MANIDE - Machine learning driven Assessment of polymetallic Nodule mining Impacts on Deep-sea Ecosystems

Franz Kannegießer (GEOMAR): Cloud removal, down-scaling, and pattern-identification - employing machine-learning techniques in meteorology

Ehsan Mehdipour (AWI): Application of Convolutional Auto-Encoder in Reconstruction of Satellite-Derived Phytoplankton Composition

Alfredo Bellido Rosas (AWI): Marine big data-driven machine learning based monitoring of phytoplankton groups in the Arctic Ocean

11:30 – 12:00

Open discussion forum on future directions in Data Science/AI

We will collect impulses for e.g.:

- the upcoming Helmholtz activities, e.g. Foundation Model Initiative
- data management aspects for AI/ML
- reference AI-ready data for benchmarks
- other networks