



Machine Learning at the Austrian Academy of Sciences

- A thematic platform of the ÖAW -

MLA²S – Machine Learning at the Austrian Academy of Sciences

MISSION

- a catalyst of **inter-institutional collaboration**
- regarding **scientific machine learning** (Theory, Development, and Application)
- at the **ÖAW and beyond**

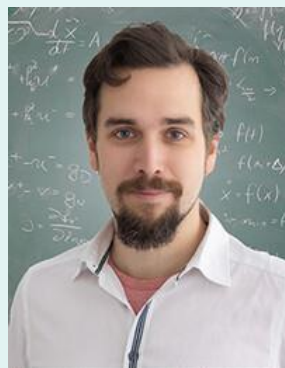
Initiated by



COORDINATORS



Kati Heinrich (IGF)



Nicki Holighaus (ISF)



Claudius Krause (MBI)



Jan Odstrčilík (IMAFO)



Claus Trost (ESI)

(since 03/25)
coordinated with



EVENTS

ANNUAL ÖAW AI WINTER SCHOOL

YEAR 2026 (16-20.02)

- 40 participants (21 GSK)
- Lectures
 - Introduction to ML/AI
 - Vibe Coding & „Promptotyping”
 - Ethics and AI
 - From idea to final project (Code & Data management)
 - Explainability





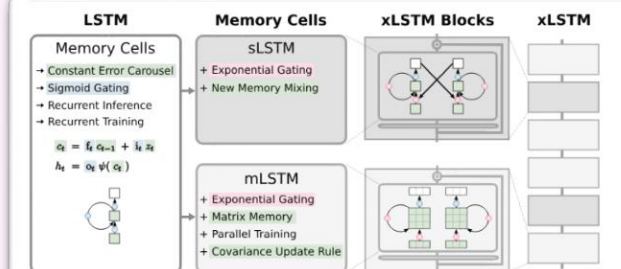
NETWORKING SEMINARS

- bi-monthly
- 2 institutes present their AI-related research or plans
- networking/socializing after scientific part
- occasionally external speakers

SPECIAL SEMINARS



xLSTM: Extended Long Short-Term Memory



Paper: <https://arxiv.org/abs/2405.04517>

Authors: Maximilian Beck, Korbinian Pöppel, Markus Spanring, Andreas Auer, Oleksandra Prudnikova, Michael Kopp, Günter Klambauer, Johannes Brandstetter, Sepp Hochreiter

AI COMPETENCE

AI EXPERTISE



INSTITUTE FOR INTERDISCIPLINARY MOUNTAIN RESEARCH (IGF)

Contact: Mathieu Gravey (Junior group leader - Digital Landscape)
Email: mathieu.gravey(at)oeaw.ac.at

Research: At IGF, my research group focuses on multiple remote sensing and geostatistics applications. We utilize existing models and develop custom solutions to meet our specific needs. For instance, we employ transformer-based approaches to explore the spatial distribution of complex underground structures. This allows us to assess water distribution, connectivity for optimal water supply, and contamination propagation. Our multimodal methods extend to disease management and mineral resource estimation applications. Additionally, we apply machine learning techniques for remote sensing data to classify clouds, snow, vegetation, and other environmental features and explore links between them.

Data Keywords: tabular, non-grided spatial data, images, rasters, timeseries

Task Keywords: generative, classification, regression, information retrieval, stochastic simulation, estimation, uncertainty quantification

AI EXPERTISE

- A resource for internal and external researchers to locate experts at the ÖAW

ASC | Austrian
Scientific
Computing



Vienna
BioCenter

AI FEEDBACK

- Regular exchange with CDSO Bernd Wachmann
- Involvement in AI Factory Austria Proposal

AI SUPPORT

EVENT organisation

- Financial
- Organisational

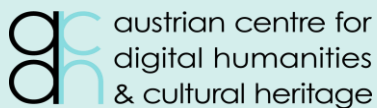
VISITS / SHORT RESEARCH STAYS (coming)

- Support for short stays at ÖAW for guest researchers

e.g., AI meets Humanities & Social Sciences Conference

23-25 June 2025

Austrian Academy of Sciences (Main Building, Dr-Ignaz-Seipel-Platz 2, Vienna)



ÖAW MLA²S

STAY IN CONTACT...

- via e-mail: <https://lists.oeaw.ac.at/mailman/listinfo/mla2s>
— or — e-mail subject “subscribe” to mla2s-request@lists.oeaw.ac.at
- via website: <https://www.oeaw.ac.at/mla2s/>
- via bluesky: [#MLA2S](https://bsky.app/profile/mla2s-oeaw.bsky.social)
[@mla2s-oeaw.bsky.social](https://bsky.app/profile/mla2s-oeaw.bsky.social)
- past and upcoming events: <https://indico.global/category/958/>
- general questions, ideas, concerns: mla2s-admin@oeaw.ac.at