

Blockseminar

7th February 2025 at IUP, S1360, 10:15 – 15:00.

The topic of the seminar is: "**Machine Learning for Climate Modelling and Earth Observations**",

covering advanced computational techniques such as (but not limited to) Deep Learning, Explainable AI (XAI), causal discovery and inference, and physically informed ML to enhance the understanding, analysis, and prediction of Earth's system.

We offer a hybrid option through zoom but encourage everybody to come in person:

<https://uni-bremen.zoom-x.de/j/62996863112?pwd=yY1nN5IfPcq7YFLyF07Ou5VqN6HFYJ.1>

Meeting-ID: 629 9686 3112

Code: 226719

Time	Speaker	Title	Chair
10:15	Veronika Eyring (online)	Welcome	Veronika Eyring
10:20	Mierk Schwabe (online)	Improving Earth System Models with Machine Learning: A Next-generation Earth System Modelling Approach	
10:45	Amal John	Exploring AI-Driven Event-Based Storylines	
11:05	Gunnar Behrens	Stochastic and Multi-Member Deep Learning Parameterizations of Convective Processes	
11:25	COFFEE BREAK		
11:40	Max Reuter	Retrieving the atmospheric concentrations of carbon dioxide and methane from the European Copernicus CO2M satellite mission using artificial neural networks	Katja Weigel
12:00	Evgenia Galytska	Understanding tropical middle stratospheric ozone changes through causal inference	
12:20	Sebastian Mieruch	An AI Based Online App for Ocean Data Quality Control	
12:40	LUNCH		
13:40	Diajeng Atmojo	Data-driven equation discovery of a sea ice albedo parametrisation	Evgenia Galytska
14:00	Georg Heygster	A Stacking Approach for Arctic Sea Ice Lead Classification (SALC) via Sentinel-1 SAR Imagery	
14:20	Felix Pithan	Bias-correcting the Arctic surface energy budget with in-situ observations and machine learning	
14:40		General Discussion with Coffee/Tea	
15:00	END		