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Deep Unsupervised Learning for Climate Informatics

Tuesday, 6 October 2020 17:00 (30 minutes)

Despite the scientific consensus on climate change, drastic uncertainties remain. Crucial questions about regional climate trends, changes in extreme events, such as heat waves and mega-storms, and understanding how climate varied in the distant past, must be answered in order to improve predictions, assess impacts and vulnerability, and inform mitigation and sustainable adaptation strategies. Machine learning can help answer such questions and shed light on climate change. I will give an overview of our climate informatics research, focusing on semi- and unsupervised deep learning approaches to studying rare and extreme events, and downscaling temperature and precipitation.

Thematic area

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Session Classification: Session 3 (cont.) and Session 4: ML for Data Assimilation and ML for Product Development

Track Classification: ECMWF-ESA Workshop on Machine Learning for Earth System Observation and Prediction