

A Norwegian Hydrological Council Meeting: Machine Learning in Hydrology, Meteorology and related fields

When: 25. April 2025

Where: Statkraft, Lilleakerveien 6, Oslo.

Entry is free upon registration (send email to: nhr@nve.no)

Programme

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| 08:15 – 09:00 | Registration and opening (use main entrance in building 1) |
| 09:00 – 09:45 | <u>Martin Gauch (Google Research)</u> <i>Deep Learning for Streamflow Forecasting: Tricks of the Trade</i> |
| 09:45 – 10:10 | <u>Karsten Muller (Norwegian Water Resources and Energy Directorate)</u> <i>ML in Avalanche Warning</i> |
| 10:10 – 10:30 | <u>Elhadi Mohsen Hassan Abdalla (SINTEF)</u> <i>Applications of ML in Urban Hydrology and Stormwater Management</i> |
| 10:30 – 11:00 | Break and Poster Session from students |
| 11:00 – 11:40 | <u>Ivar Ambjørn Seierstad (Norwegian Meteorological Institute)</u> <i>Towards data driven regional weather forecasting</i> |
| 11:40 – 12:00 | <u>Lasse T. Keetz (Dep. Of Geosciences, University of Oslo)</u> <i>ML in ecosystems modelling – land cover classification and land surface model parameter estimation</i> |
| 12:00 – 12:45 | Lunch and Poster Session from students |
| 12:45 – 13:30 | <u>John Aiken (Dep. Of Physics, University of Oslo/Expert Analytics)</u> <i>Understanding subsurface processes in a carbon sequestration environment</i> |
| 13:30 – 13:50 | <u>John Bjørnar Bremnes (Norwegian Meteorological Institute)</u> <i>Fine-tuning probabilistic precipitation forecasts using censored Bernstein Quantile Networks.</i> |
| 13:50 – 14:15 | <u>Kristoffer Aalstad (Dep. Of Geosciences, University of Oslo)</u> <i>Learning to assimilate and assimilating to learn</i> |
| 14:15 – 14:30 | Break |
| 14:30 – 15:10 | <u>Kamilla Wergeland/ Silius M. Vandeskog (NORCE/NR)</u> <i>Predicting streamflow and hydropower production with Long Short-Term Memory models</i> |
| 15:10 – 15:30 | <u>Kristen Joy Valseth (Dep. Mathematics, University of Oslo)</u> <i>The CAMELS-Nordic dataset for hydrological ML studies</i> |
| 15:30 – 15:35 | End |

Questions concerning practicalities: asgeir.petersen-overleir@statkraft.com