

Atmospheric Science Day 2024

Friday 1 November 2024

Aula IDHEAP

08:00-08:45 Check-in and welcome coffee

Welcome and introduction

08:45-09:00 Charmilie Nault (CLIMACT), Erwan Koch (ECCE), Tom Beucler (UNIL), Hendrik Huwald (EPFL)

Session 1 - Chair: Hendrik Huwald (EPFL)

09:00-09:15 Brandon van Schaik CRYOS EPFL Advancing Swiss Alpine Wind Energy Studies: Resolving 3D wind fields using novel wind-Doppler LiDAR methods
09:15-09:30 Wolfgang Wicker AP UNIL Is there a contribution by atmospheric dynamics to the increase in persistent temperature extremes?
09:30-09:45 Andries-Jan De Vries AP UNIL Atmospheric drivers of extreme weather in dry subtropical and cold polar regions
09:45-10:00 Daniela Brito Melo CRYOS EPFL Modelling blowing snow with atmospheric models - the case of CRYOWRF

10:00-10:30 Coffee break

Session 2 (Keynote) - Chair: Tom Beucler (UNIL)

10:30-11:00 Andreas Prein IAC ETHZ Climate Simulations at Weather Forecasting Resolution: The Benefit, Challenges, and Prospects of Kilometer-Scale Climate Modeling

Session 3 - Chair: Erwan Koch (ECCE)

11:00-11:15 Tom Beucler DAWN UNIL Distilling Machine Learning's Added Value: Pareto Fronts in Atmospheric Applications
11:15-11:30 Lucas Schmutz GAIA UNIL A Multivariate Approach to Combine CMIP6 Models for Enhanced Climate Projections
11:30-11:45 Said Obakrim GAIA UNIL A multivariate and space-time stochastic weather generator using a latent Gaussian framework

11:45-13:00 Lunch

Session 4 - Chair: Amrie Singh (ECCE)

13:00-13:15 Pauline Rivoire AP UNIL Hydro-Meteorological Drivers of Forest Damage over Europe
13:15-13:30 Fatemeh Zakari GAIA UNIL Climate-Driven High-Resolution Snow Data Forecasting for Hydrological Predictions
13:30-13:45 Milton Gomez DAWN UNIL Postprocessing Neural Weather Model Outputs for TC Intensity
13:45-14:00 Sergi Gonzalez Herrero CRYOS EPFL Storylines of snow changes in different mountain environments

14:00-14:30 Coffee break

Session 5 - Chair: Ryan Cotsakis (ECCE)

14:30-14:45 Nora Bergner EERL EPFL Understanding aerosols and clouds in polar regions
14:45-15:00 Fabien Solmon LAERO CNRS Aerosol climate interactions in Africa
15:00-15:15 Erwan Koch ECCE UNIL Forecasting with Markovian max-stable fields in space and time: an application to wind gust speeds
15:15-15:30 Ayoub Fathi DeTect UNIL Compression of Geospatial Data with Varying Information Density

Final remarks and closing

15:30-15:45 Charmilie Nault (CLIMACT), Erwan Koch (ECCE), Tom Beucler (UNIL), Hendrik Huwald (EPFL)

15:45-17:00 Posters and Aperitif

16:30 ECRs presentations and posters awards