

# Program Swiss Remote Sensing Days 2025

**25 - 27 August 2025**

**Empa, Academy, Dübendorf**

## Day 1 – Monday 25 August

**10:00 – 10:30 Welcome and coffee**

**10:30 – 11:30 Keynote, *Thomas Zurbuchen and Verena Griess, ETH***

**11:30 – 12:30 Lightning talks and posters – Session 1**

<i>Sandro Meier, Empa</i>	Capabilities of the Airborne Visible InfraRed Imaging Spectrometer 4 (AVIRIS-4) for the quantification of anthropogenic CH <sub>4</sub> emissions
<i>Valerie Zermatten, EPFL</i>	EcoWikiRS: Learning Ecological Representation of Satellite Images from Weak Supervision with Species Observations and Wikipedia
<i>Jonas Wydler, EAWAG/UZH</i>	Intercomparison of bio-optical primary production models in freshwater and coastal ecosystems.
<i>Loretta Pearl Poku, OCCR UBern</i>	Comparison of Tomographic Wind Analysis Algorithms for Multistatic Meteor Radar Networks

**12:30 – 14:00 Lunch**

**14:00 – 16:00 Lightning talks and posters – Session 2**

<i>Catalina Medina, IAP UBern</i>	Simulation of Sidelobes Effect on Brightness Temperature Bias for the Arctic Weather Satellite Radiometer
<i>Riccardo Pedrelli, UZH</i>	DEM Generation Using very high-resolution satellite SAR imagery
<i>Yuchang Jang, Google/UZH</i>	A High-Resolution Tree Crop Map of South America
<i>Adrianos Filinis, IAP/OCCR</i>	Firsts results with a new cryogenically cooled radiometer for water vapour at 22 GHz
<i>Lars Groeneveld, UZH</i>	Towards physical-based shadow compensation in imaging spectroscopy data for advanced retrieval of urban environmental factors
<i>Sergio Roy Martinez, UZH/EAWAG</i>	Implementation of WAFER for the retrieval of sun-induced chlorophyll fluorescence from airborne spectroscopy data

**16:00 – 16:30 Coffee break**

## Day 1 – Monday 25 August, continued

### 16:30 – 17:30 Highlight presentations

Joan Sturm, Swisstopo	SwissEO data of Swisstopo
Olivier Dietrich, ETH Zurich	An open-source tool for mapping war destruction at scale in Ukraine using Sentinel-1 time series
Andrea Manconi, WSL	From Long-Term Slope Monitoring to Rapid Failure: Insights from Brinenz/Brinzauls and Blatten (Swiss Alps) Using Spaceborne Radar

**17:30 – Apéro Riche at Atrium Forum Chriesbach, EAWAG**

## Day 2 – Tuesday 26 August

**09:00 – 10:00 Keynote, *Yasjka Meijer, ESA ESTEC***

**10:00 – 10:30 Coffee break**

**10:30 – 12:30 Lightning talks and posters – Session 3**

Christoph Riess, Empa	Estimating NO <sub>x</sub> emissions of individual ships from TROPOMI NO <sub>2</sub> plumes
Joëlle Hanna, Uni SG	Know Your Attention Maps: Class-specific Token Masking for Weakly Supervised Semantic Segmentation
Philipp Schmid, IAP UBern	Accurate weather radar measurements: solar flux density monitoring and wet radome experiments
Arthur Gauthier, DLR	TIMED Doppler Interferometer Measurements of Neutral Winds at the Mesosphere and Lower Thermosphere and Comparison to Meteor Radar Winds
Rushan Wang, WSL	Revealing Subsurface Discontinuities in Borehole Imagery Using Semantic Segmentation
Gwendolyn Dasser, WSL	Extracting Information on Wet Snow Avalanche Preconditions from Sentinel-1 Multi-Track Composites
Jan Pišl, EPFL	Classification of Post-Deforestation Land Use with Multi-Modal Deep Learning

**12:30 – 14:00 Lunch**

**14:00 – 16:00 Lightning talks and posters – Session 4**

Guochun Shi, IAP UBern	Exploring Polar Middle Atmospheric Ozone and Water Vapor Variability Using Ground-Based Microwave Radiometers
Maire Loé, EAWAG	Differentiating phytoplankton taxa in lakes using hyperspectral in situ reflectance and imaging microscopy
Alistair Bell, OCCR UBern	Radiative Effects of Hunga Volcanic Eruption in the Middle Atmosphere: A Model and Observation-Based Analysis
Nicolas Oestreicher, ETHZ	Spatial and temporal variability of surface deformation in a paraglacial alpine environment measured from satellite radars
Johannes Dollinger, UZH	Sat-SINR: High-Resolution Species Distribution Models Through Satellite Imagery
Mortimer Werther, EAWAG	Satellite remote sensing of Swiss lake surface water through NASA's novel PACE mission
Leon Hauser, UZH	Corporate Biodiversity and Water Impact and Risk: Seven Key Principles for Leveraging Insights From Satellite Remote Sensing

**16:00 -**

**Hike to ETH, Social dinner at Dozentenfoyer starting 18:30**

## Day 3 – Wednesday 27 August

**09:00 – 10:00 Keynote, *Jan Dirk Wegner, UZH***

**10:00 – 10:30 Coffee break**

**10:30 – 12:30 Lightning talks and posters – Session 4**

Manon Béchaz, EPFL	Self-supervised Change Detection via Cooperative Learning: A Two-Player-Model
Abolfazl Irani Rahagh, EAWAG	Advancing Alpine lake monitoring and modelling with high-resolution thermal remote sensing
Witali Krochin, IAP UBern	Updates on the measurement campaign at the Jungfraujoeh High Altitude Observatory with a fully polarimetric microwave radiometer
Mirela Beloiu Schwenke, ETHZ	TreeAI: A global database for tree species annotations and high-resolution aerial imagery
Helge Aasen, Agroscope	Swiss Platform for Agro-Ecophysiological Remote Sensing Research and Observations (SPERRO)
Wyndel Sañoz, Uni Lausanne	Application of airborne green lidar in mapping zooplankton in lakes