

Swiss Remote Sensing Days 2023

University of St. Gallen, SQUARE, 4.-6. Sept

| Day | Sunday (3. Sept) | Monday (4.Sept) | Tuesday (5. Sept) | Wednesday (6. Sept) |
|-------------|-----------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 08:30-09:00 | | Opening Welcome | | |
| 09:00-10:00 | | Keynote: Xiaoxiang Zhu | Keynote: Marc Seifert | Keynote: Claudia Rösli |
| 10:00-10:30 | | Coffee Break | | |
| 10:30-12:30 | | Lightning Talks and Posters | Lightning Talks and Posters | Lightning Talks and Posters |
| 12:30-14:00 | | Lunch @ University Mensa | | |
| 14:00-16:00 | | Lightning Talks and Posters | Social Event @ Hike to Waldegg (Schnuggebock) Meeting point: Mühleggbahn Talstation @ 16:00 Reception @ 18:00 | |
| 16:00-16:30 | | Coffee Break | | |
| 16:30-17:30 | | Highlight Talks | | |
| 17:30-18:30 | | Chill & Aperero | | |
| 18:30+ | Welcome Dinner @ Brasserie LOK | Dinner @ University Library | | |

Please find a **map** with all locations of the meeting here: s.geo.admin.ch/a132c1bda9.

Social Events

- **Welcome Dinner at Brasserie LOK** (<https://www.brasserie lok.ch/>)
We meet at the location on Sunday at 18:30 and will be served a fixed menu based on your meal preference (make sure to remember your pick!)
- **Dinner at the University Library**
After the scientific program concludes on Monday, we will have a buffet at the foyer of the university library with different meal alternatives and drinks. Dinner will be accompanied by a (voluntary) **Remote Sensing Trivia Quiz** - join us and win some incredible prizes!
- **Hike to Waldegg and Dinner at Schnuggebock** (s.geo.admin.ch/a132b4ca70)
We will meet at **16:00** at the bottom of **Mühleggbahn (Talstation)** behind the monastery. Those who want are free to take the cable car up the 50m to St. Georgen (this is the steepest part of the hike), from where we will hike to Waldegg, which takes approximately 2 hours (4.2 km in total distance one way, 310 m in elevation). Please be prepared for bad weather and bring **proper hiking shoes, raingear and a headlamp** as we will be hiking back during dusk. It is possible to shorten the hike with public transportation - options will be presented at the meeting. There will be a reception at the Schnuggebock restaurant starting at **18:00**. After that, we will be served dinner based on your meal preference (make sure to remember your pick!)

Keynotes

Keynotes will be presented each morning (9:00 - 10:00) by our incredible speakers:

- Monday: **Xiaoxiang Zhu**, [TUM](#): *Data Science in Earth Observation for social good*
- Tuesday: **Marc Seifert**, [OroraTech GmbH](#): *Fires, droughts, heatwaves - realtime thermal data for highly dynamic events*
- Wednesday: **Claudia Röösl**, [University of Zurich](#): *How can research with satellite and remote sensing data be brought to application?*

Highlight Talks

We will feature select research projects in two highlight talks (Monday, 16:30-17:30):

- **Mehmet Özgür Türkoglu**, ETH Zürich: *Country-wide Cross-Year Crop Mapping from Optical Satellite Image Time Series*
- **Leon Hauser**, University of Zurich: *Towards scalable estimation of plant functional diversity from Sentinel-2*

Each presentation will consist of a 20 min oral presentation and 10 min discussion.

Lightning Talks and Posters

A wide range of research projects will be presented in these four sessions. Each session will start with 5-min lightning talks (max. **5 slides**, please send your slides as **pdf** to michael.mommert@unisg.ch prior to your respective session) by the different presenters and subsequent discussions at the posters.

Monday, 10:30-12:30

- Nando Metzger, ETHZ, *Fine-grained population mapping from coarse census counts and open geodata*
- Xiongxin Xiao, UNIBE, *40 years times series of global snow cover fraction based on AVHRR data - first analysis and results*
- Joëlle Hanna, UNISG, *Sparse Multimodal Vision Transformer for Weakly Supervised Semantic Segmentation*
- Fabio Oriani, Agroscope, *Satellite monitoring of mountain pastures: statistical characterization of different habitats based on spectral properties*
- Paul Schaudt, UNISG, *Pits and Smoke: Measuring industrial mining from space*
- Kathrin Naegeli, UZH, *Thermal InfraRed (TIR) research across-scales, sensors and spheres: The TRISHNA T-SEC Project*
- Linus Scheibenreif, UNISG, *Masked Vision Transformers for Hyperspectral Image Classification*
- Fatemeh Zakeri, IDYST/UNIL, *Reconstructing High-Resolution Snow Water Equivalent (SWE) Data for Improved Water Resource Management (1950-2100)*

Monday, 14:00-16:00

- Mira Barben, UNIBE, *Creation of seasonal emissivity maps in Northern Europe based on AVHRR data*
- Javiera Castillo Navarro, EPFL, *Text as a richer source of supervision in semantic segmentation tasks*
- Elisabeth D. Hafner, SLF, *Where experts disagree: reliability of avalanche size estimates and manually mapped avalanche outlines*
- Yuchang Jiang, UZH, *Accuracy and Consistency of Space-based Vegetation Height Maps for Forest Dynamics in Alpine Terrain*
- Yuru Jia, ETHZ, *DeFlow: Self-supervised 3D Motion Estimation of Debris Flow*
- Arthur Gauthier, DLR/UNIBE, *TIDI observations of mesospheric and lower thermospheric winds and tidal analysis – preliminary results*
- Witali Krochin, UNIBE, *Middle atmospheric thermal tides at mid-latitudes, observed by a ground-based radiometer*
- Nicolas Kesseli, UNISG, *Combining Multi-modal data for Earth Observation applications*

Tuesday, 10:30-12:30

- Sonia Dupuis, UNIBE, *Generation of an improved land surface temperature time series to support permafrost modelling in the northern high latitudes*
- Xuemei Jiang, UNISG, *Self-supervised Learning in Remote Sensing*
- Pia Ruttner-Jansen, SLF, *Monitoring and modelling snow avalanches to innovate road safety management in alpine valleys*
- Wenyue Wang, UNIBE, *An Indoor Microwave Radiometer for Measurement of Tropospheric Water*
- Alexander Lontke, UNISG, *Diffusion for self-supervised pretraining on multi-modal Earth observation data*
- Jie Zeng, UNIBE, *Multistatic meteor radar observations of two-dimensional horizontal MLT wind*
- Charlotte Poussin, UNIGE, *Improved Landsat-based snow cover mapping accuracy using a spatiotemporal NDSI and generalized linear mixed model*
- Julius Lautz, UNISG, *Data Distillation for Remote Sensing Data*

Wednesday, 10:30-12:30

- Gerrit Kuhlmann, Empa, *Quantifying methane super-emitters from oil and gas production in Romania with the AVIRIS-NG imaging spectrometer*
- Gaston Lenczner, EPFL, *Weakly-supervised continual learning for class-incremental segmentation*
- Johannes Dollinger, UZH, *A Deep Low-Resolution Species Distribution Model*
- Gregor Perich, ETHZ, *EOdal: An open-source Python package for large-scale agroecological research using Earth Observation and gridded environmental data*
- Alistair Bell, UNIBE, *Developments on a 22 GHz Radiometer for Middle Atmosphere Water Vapour in Switzerland*
- Adrianos Filinis, UNIBE, *A new generation Middle Atmosphere Water Vapor Radiometer in Switzerland – MIAWARA-C2*
- Michael Mommert, UNISG, *ben-ge: Extending BigEarthNet with Geographical and Environmental Data*

Contact

In case you have any questions about the meeting, please contact either Michael Mommert (michael.mommert@unisg.ch, phone: 077 502 2797) or Damian Borth (damian.borth@unisg.ch, phone: 079 931 9507).