

SnowTinel Project

Final workshop

10.12.2025, 09:00–13:00

Eurac Research – Seminar 1 & online



The SnowTinel project investigates how radar remote sensing can detect, monitor, and predict snowmelt processes in mountain regions. It combines expertise in snow and hydrological modeling, in situ snow measurements, and remote sensing. Its main goal is to improve understanding of radar interactions with wet snowpack evolution. The resulting insights aim to enhance snowmelt modeling and reduce timing errors in discharge simulations. The project is a collaboration between WSL/SLF in Davos and Eurac Research in Bolzano, supported by the Swiss National Science Foundation and the Province of South Tyrol in Italy.

Program

09:00 – 09:10	Welcome & Introduction Opening remarks by the organizers
09:10 – 09:30	Overview Talk Giacomo Bertoldi – Eurac Research, Carlo Marin – Eurac Research <i>Introduction to the SnowTinel Project</i>
09:30 – 09:50	Technical Talk 1 Francesca Carletti – WSL Institute for Snow and Avalanche Research SLF <i>Snow melt dynamics derived from Sentinel-1, in situ measurements, and radiative transfer modeling</i>
09:50 – 10:10	Technical Talk 2 Valentina Premier – Eurac Research <i>Multi-source high-resolution satellite data for retrieving snow cover area maps</i>
10:10 – 10:30	Technical Talk 3 Michele Bozzoli – Eurac Research; C3A, University of Trento <i>Estimating snow water equivalent using satellite data and hydrological models</i>
10:30 – 11:00	Coffee Break
11:00 – 11:20	Technical Talk 4 Riccardo Barella – Eurac Research <i>Investigating snow properties through field measurements and melting calorimetry</i>
11:20 – 11:40	Technical Talk 5 Mathias Bavay – WSL Institute for Snow and Avalanche Research SLF <i>Challenges in snow physical modeling and insights from the Weissfluhjoch dataset. Discussion on snow process modeling and long-term data from Davos</i>
11:40 – 12:00	Invited Online Talk Christoph Marty – WSL Institute for Snow and Avalanche Research SLF <i>Gridded climatological snow datasets for Switzerland</i>

12:00 – 12:15	Invited in-presence Talk Nicola Pugno – University of Trento <i>Advanced Quantized FRActure MEchanics models of ice and snow for GLObal Warming risk mitigation</i>
12:15 – 12:50	Open Discussion and Q&A <i>Moderated discussion with all speakers</i> <i>Audience questions and interactive exchange</i>
12:50 – 13:00	Closing Remarks <i>Summary and next steps</i>

In the **afternoon** there will also be the possibility to **feedback** on the project in an informal setting. All interested participants are welcome to join. For those who wish to stay for the afternoon session, there will be a lunch at Eurac Research's restaurant (at your own cost). If you would like to join us, please let us know.

Please confirm your attendance by **5 December**.

For participants joining **online**, you can connect via the following [link](#).

Contact

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