

Lüschersee Tschappina

Permanent GNSS monitoring of a natural lake during the re-filling process



- 📍 Tschappina, Switzerland
- 👤 Canton of Graubünden, Office for Forests and Natural Hazards
- 🕒 2018 - ...

Services

- ◆ Delivery, installation and commissioning of GNSS sensors
- ◆ Automatic monitoring with high-precision daily solutions (< 3 mm in position)
- ◆ Online access to current measurement values on a web-based customer portal

Technologies

- ◆ 4 solar-powered, autonomous TEDAMOS GNSS sensors
- ◆ TEDAMOS Web, password-protected customer portal with 24/7 access

In 1910, the water of the natural Lüschersee lake above Tschappina was drained because it was suspected to be connected to the landslides on the Heinzenberg. In 2019, the lake is to be refilled to investigate whether the lake is sufficiently sealed to ensure that there is enough water at the beginning of winter to serve as a reservoir for a technical snow-making system for the Tschappina-Lüscher-Urmein ski lifts.

Three selected locations will be monitored using GNSS to investigate any slope movements during the reactivation of the lake.

The autonomous, solar-powered measuring systems enable the project managers to reliably and continuously monitor the movements of the terrain at the sensor locations in the low millimetre range.