



## **Hydrological Interpretation of ERT Monitoring Data on active landslides by implementation of numerical modelling at sites of the LAMOND Long-Term Landslide Monitoring Network**

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Five landslides are monitored in the framework of the LAMOND Network using Electrical Resistivity Tomography (ERT), three of these are located in Austria, one in Italy and one in France. Hydrological interpretation of the collected ERT data is typically carried out qualitatively on a visual basis. In this study, numerical modelling in combination with parameter estimation is implemented to build a basis for an enhanced interpretation. Parameter estimation is carried out by Comsol Multiphysics using Richard's equation and the Optimization module. The result of the forward model (water saturation) is compared to the ERT section (resistivity) using Archie's law. The study LAMOND is funded by the Austrian Academy of sciences.