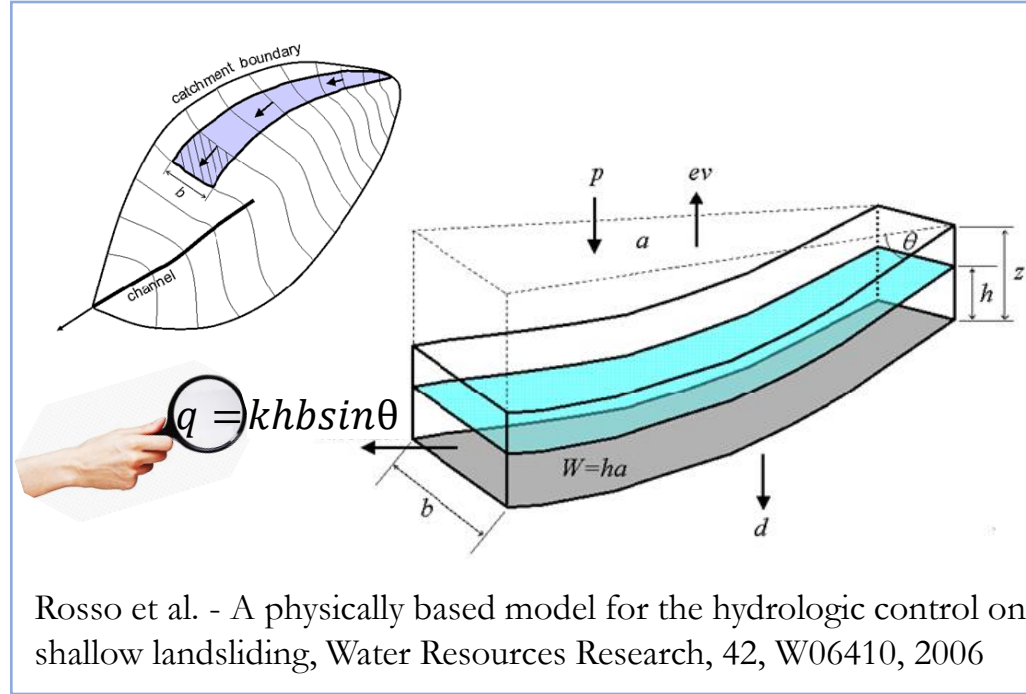
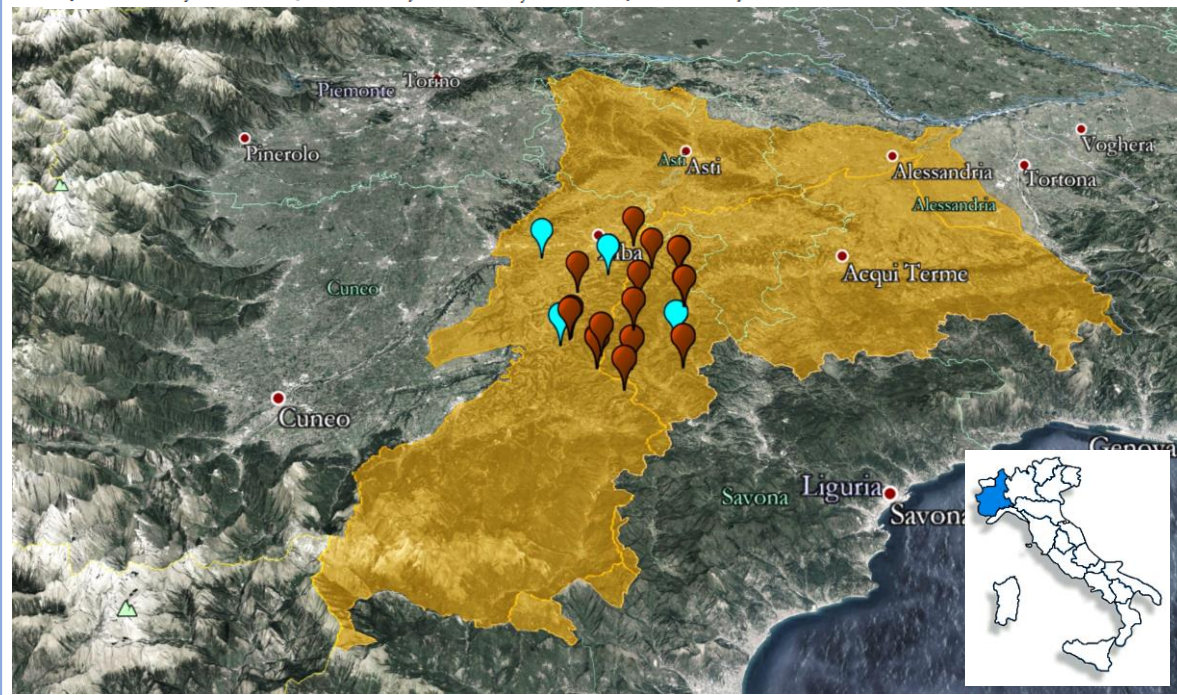
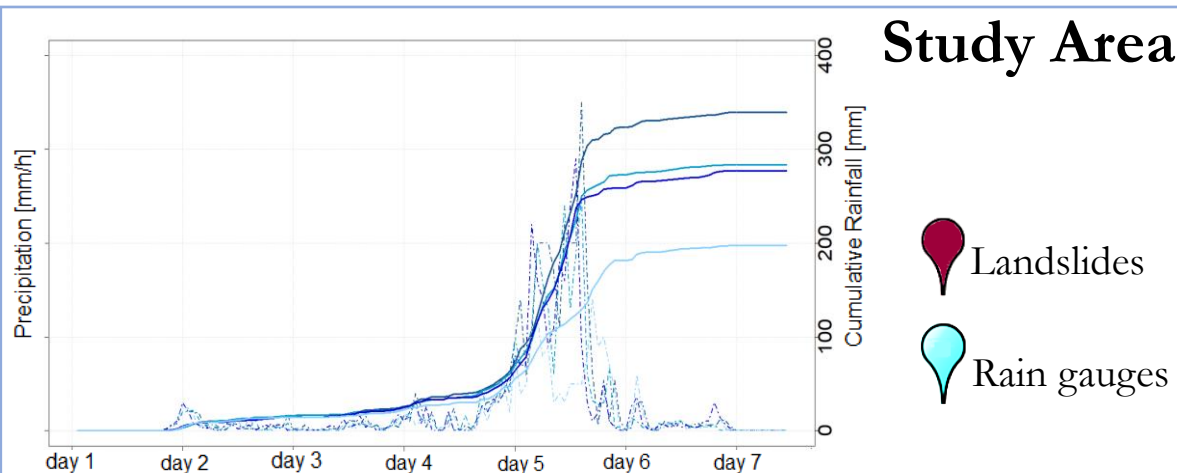


Our goal

Small scale calibration with the aim of estimating the actual cohesion and permeability values over 13 selected shallow landslides.



Validation thanks to **regional databases** of well-documented **geometries** and **geotechnical parameters**.



Flow Analysis for **k** calibration



Method

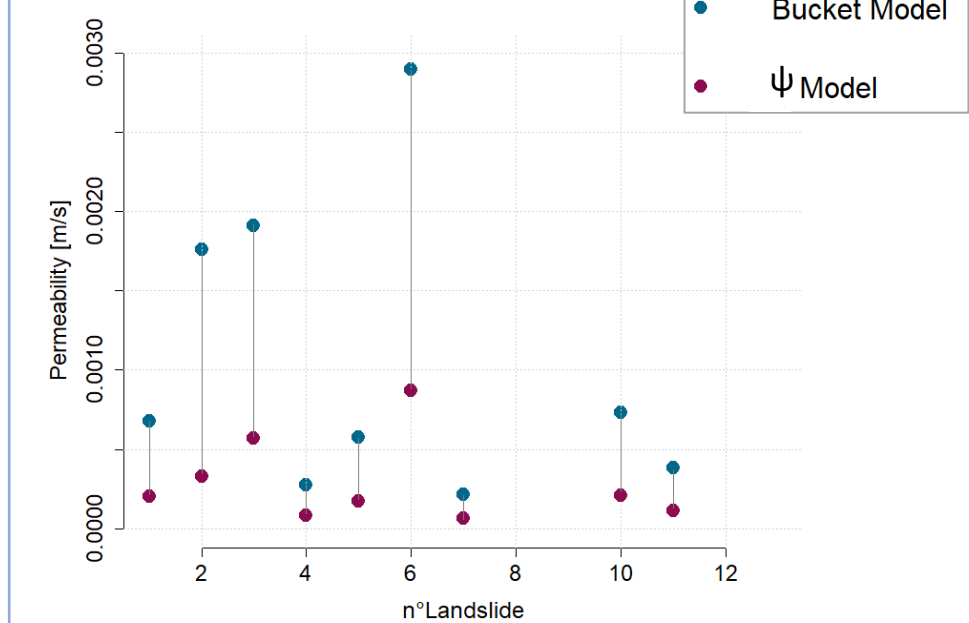


Mechanical Analysis for **c** calibration, by targeting SF to assume the value 1

$$SF = \frac{c' + \left[\left(1 - \frac{h}{z}\right) \gamma + \frac{h}{z} \gamma' \right] z \cos^2 \theta \tan \Phi'}{\left[\left(1 - \frac{h}{z}\right) \gamma + \frac{h}{z} \gamma_{sat} \right] z \sin \theta \cos \theta}$$

Results

Permeability Calibration



Cohesion Calibration

