

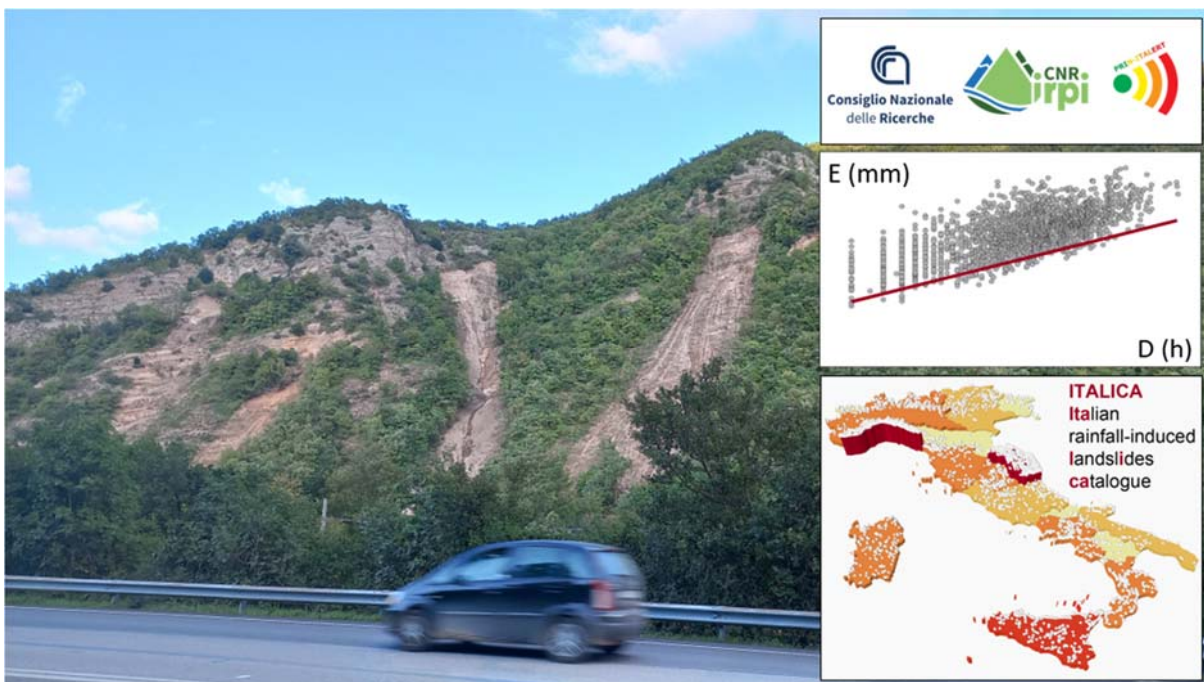
Seminario

Rainfall induced landslides in a changing climate: data, tools, challenges and perspectives for regional scale prediction

Giovedì 12 dicembre 2024 – ore 16:30, Aula Arduino

Relatore: **Dr. Stefano Luigi Gariano**

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Predicting the occurrence of rainfall-induced landslides is not a trivial task, given the high randomness and the large spatial and temporal variability of these natural and human-induced phenomena. Climate and environmental changes affect both the characteristics of the rainfall trigger and the landscape response, at different spatial and temporal scales, making landslide prediction even more complex.

With the increasing use of data-driven prediction models, often based on artificial intelligence, the availability of accurate information on landslide occurrence and the rigorous definition of their triggering rainfall conditions are crucial.

The seminar delves into the critical steps in developing reliable regional-scale prediction models for rainfall-induced landslides, starting with the data collection and analysis. Then, an overview of quantitative and reproducible methods, models and tools is presented, with a focus on the definition of rainfall thresholds, given their usability in regional-scale early warning systems and in the evaluation of changes in the landslide triggering conditions. Challenges introduced by the ongoing and expected global changes are discussed.

Proponente: **Ascanio Rosi**