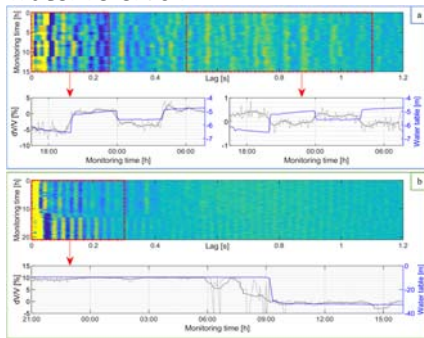
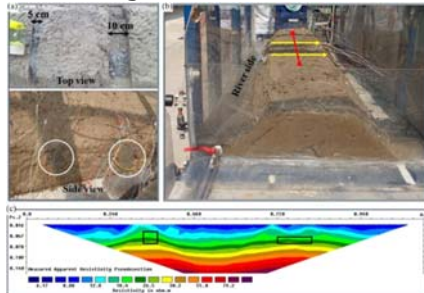


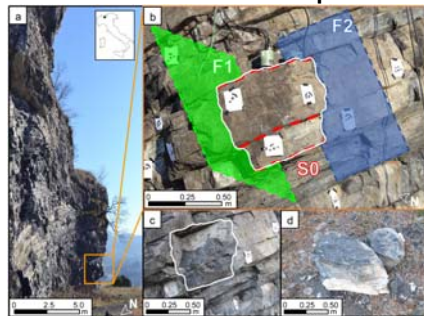
Field test for the application of seismic interferometry to study a water reservoir



Lab test for geoelectrical monitoring of earthen levees



Seismic noise monitoring of a small rock block collapse test



CONTACTS

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RESEARCH TOPICS

- Seismic interferometry to study groundwater variations
- Passive seismic investigations applied to unstable slopes: microseismic monitoring; processing algorithms for single-station noise recordings to retrieve spectral and polarization features
- Lab testing of novel sensors for passive seismic applications
- Geophysical monitoring of earth dams and levees with particular focus on novel DC resistivity hardware and processing sequences
- Geoelectrical monitoring of landfills to detect leachate leakage
- Geoelectrical investigations to study water reservoirs
- Monitoring of rainfall-induced landslides with optical fibre systems and electrical resistivity tomography
- Location of leakage in water pipe networks with passive seismics
- GPR investigations of structures and archaeological sites
- Analysis of unstable slopes with seismics (high-resolution reflection seismics, P- and S-waves refraction seismics, refraction tomography, MASW), GPR (common offset and common mid-point), and with electrical resistivity tomography
- Seismic and electromagnetic investigations to study dismissed mining sites
- Passive seismics and GPR to locate people trapped under rubble
- Monitoring of unstable slopes with remote sensing techniques (real- and synthetic aperture interferometric radars)
- GPR investigations of railway ballast
- Study of snow electromagnetic properties for avalanche forecasting
- MatLab® software development for radar and seismic data processing