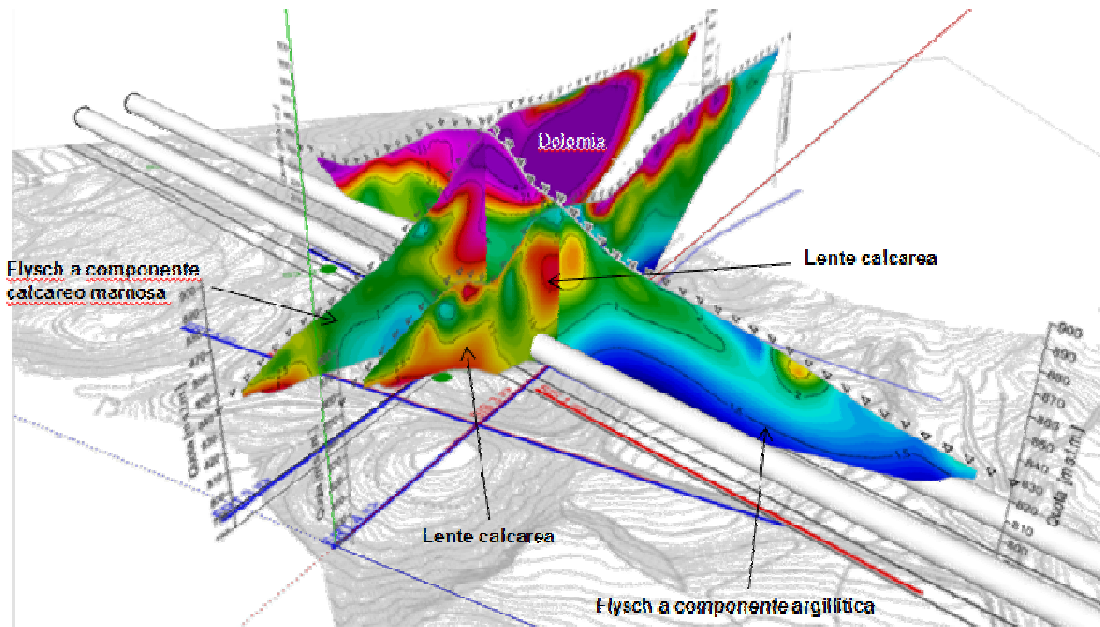


GEOLOGICAL MODELLING FOR CIVIL WORKS (TUNNELING) GEOELECTRICAL METHOD

3D model



Project:

Evaluate the causes of a collapse in a gallery under construction.
Lagonegro (Pz - Italy) 2011

Survey method:

Multielectrode geoelectrical method (48 electrodes with spacing between them of 10 m, total length = 470 m)

Scope of the survey:

- Evaluate the geological conditions around the collapsed zone
- Evaluate the geological conditions of the rest of the tunnel (to be excavated)

Obtained results :

- Precise definition of the geological main contacts, with recognition of the following elements:
 - Recognition of a main reverse fault related to the tunnel collapse
 - Recognition of a thrust below a small Klippe of dolomite (strong deformed zone just above the collapsed zone)
 - Recognition of a different type of rock formation (argillite schist for the part still to be excavated)

Geoelectrical section along the tunnel axis (resistivity values in logarithm scale)

