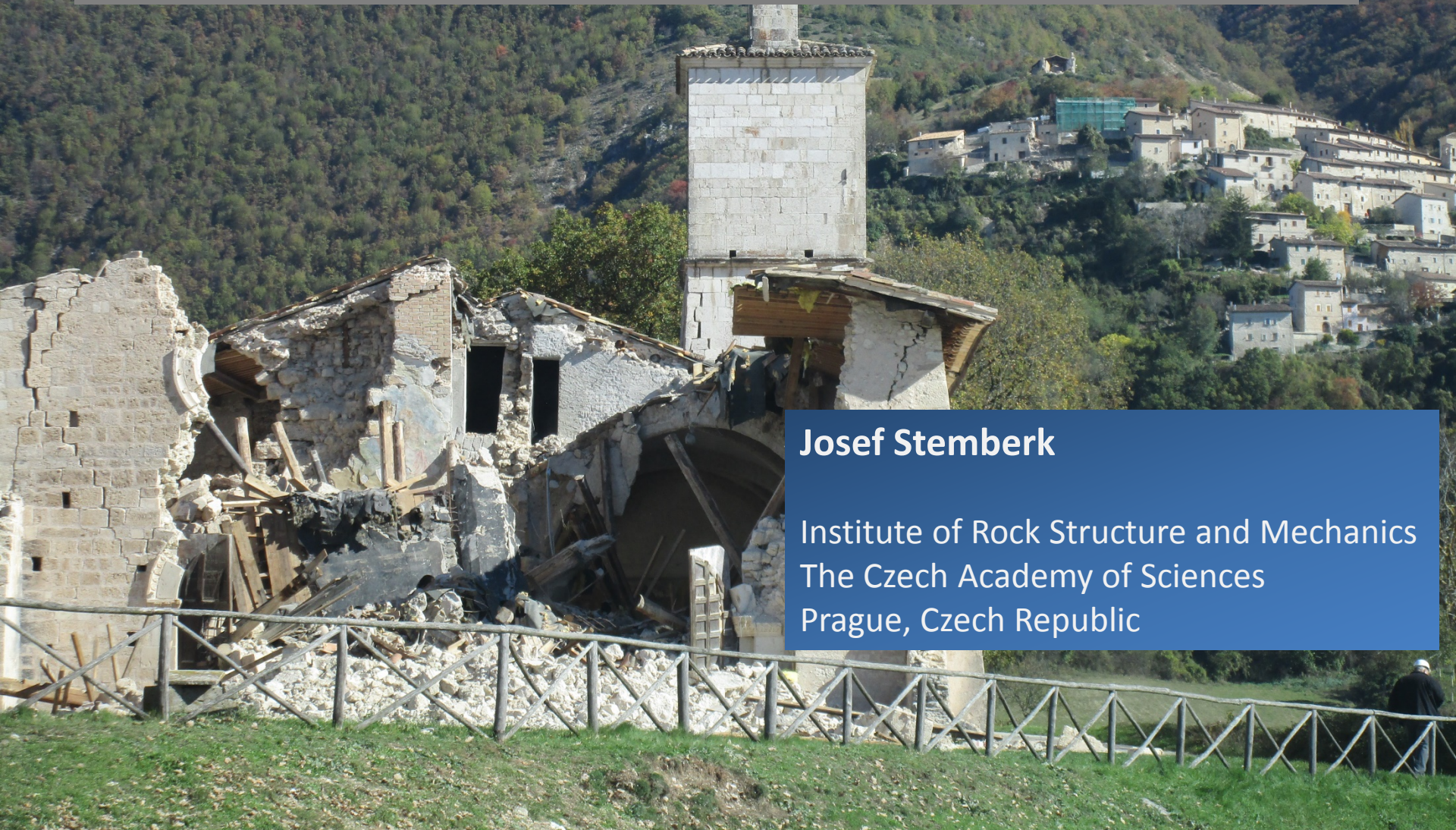


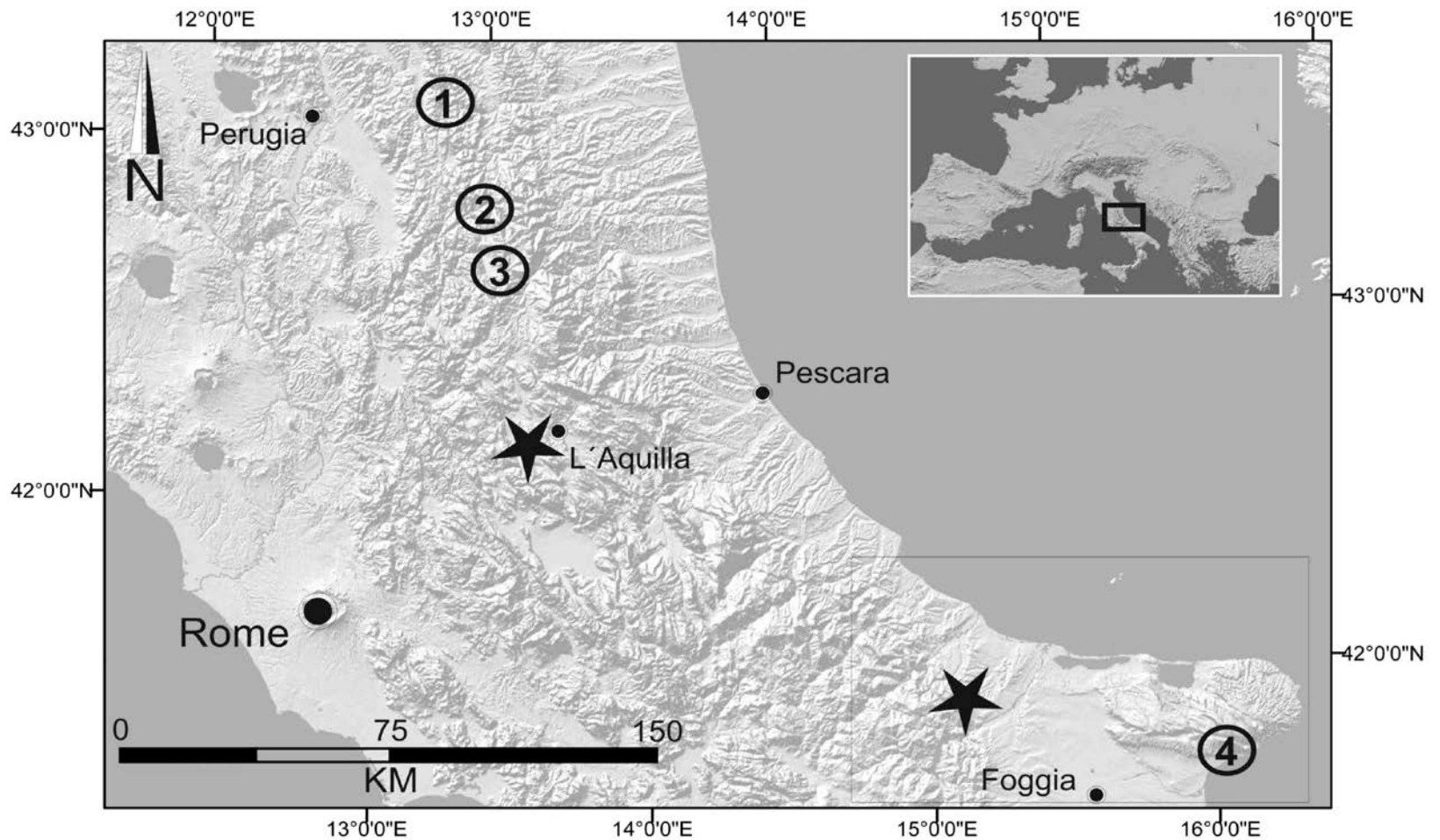
TecNet

Norcia 26th and 30th October 2016 earthquakes – recorded fault slip in the Central Appenines



Josef Stemberk

Institute of Rock Structure and Mechanics
The Czech Academy of Sciences
Prague, Czech Republic

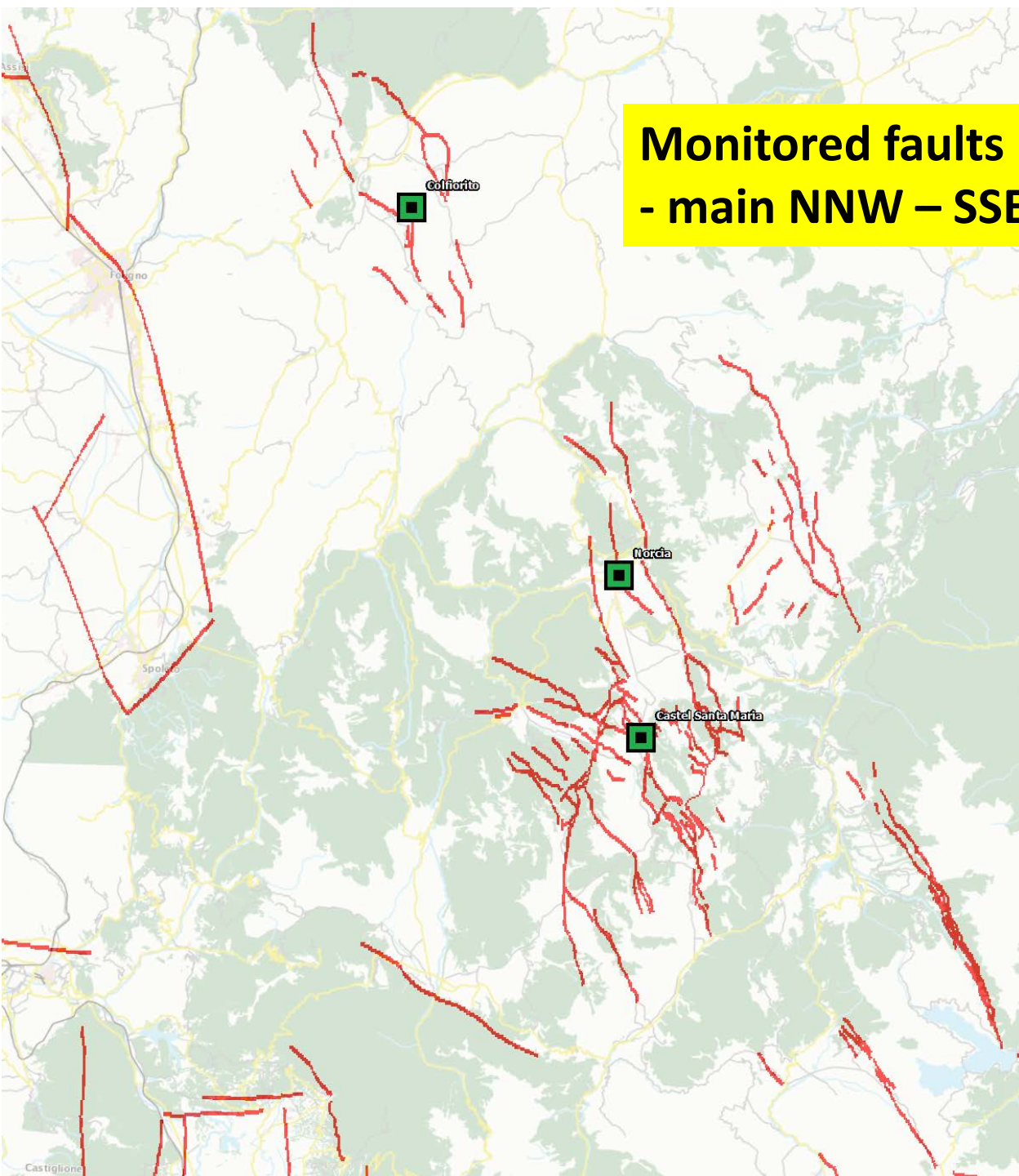


3-D extensometers TM-71 were installed at four sites in Italy in 2002 and 2003

Central Apennines: 1 - Colfiorito; 2 - Norcia (A); 3 - Castel Santa Maria

Gargano Peninsula: 4 - Matinata (A)

**Monitored faults in Central Apennines
- main NNW – SSE trending faults**

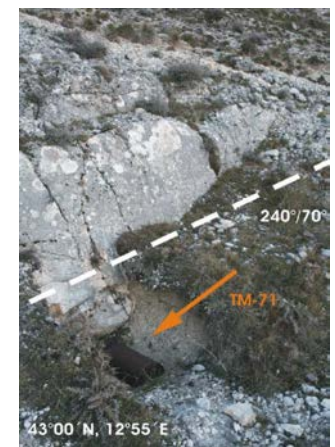
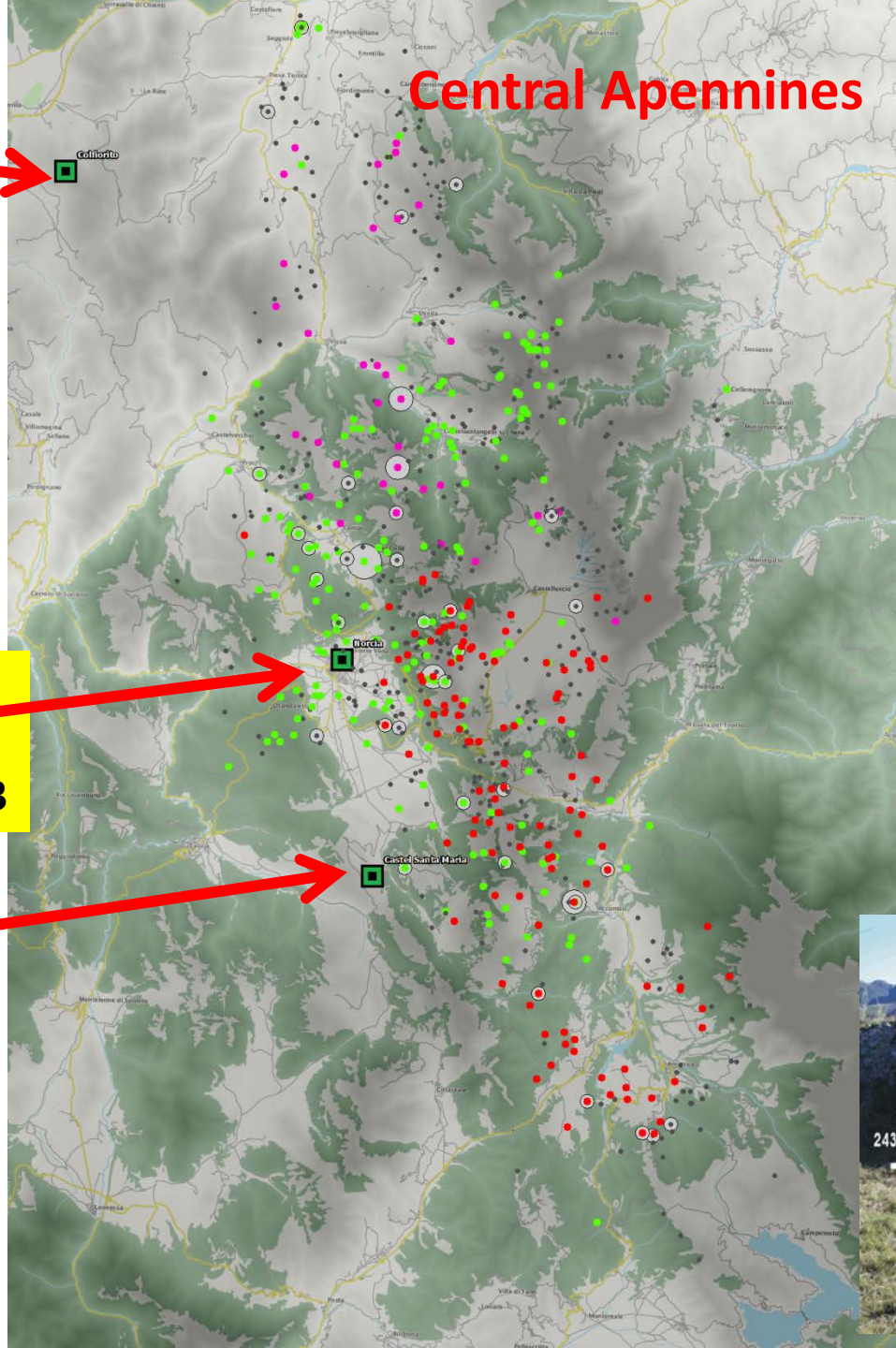


Colfiorito
- since 2003

Central Apennines

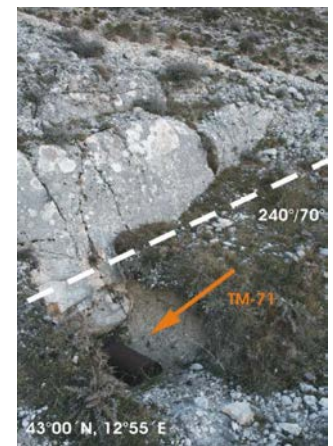
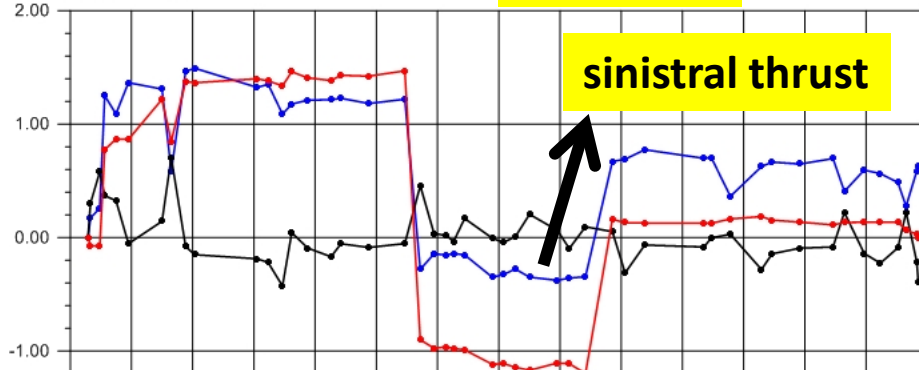
Norcia
- since 2002
automated since 2013

Castel Santa Maria
- since 2002

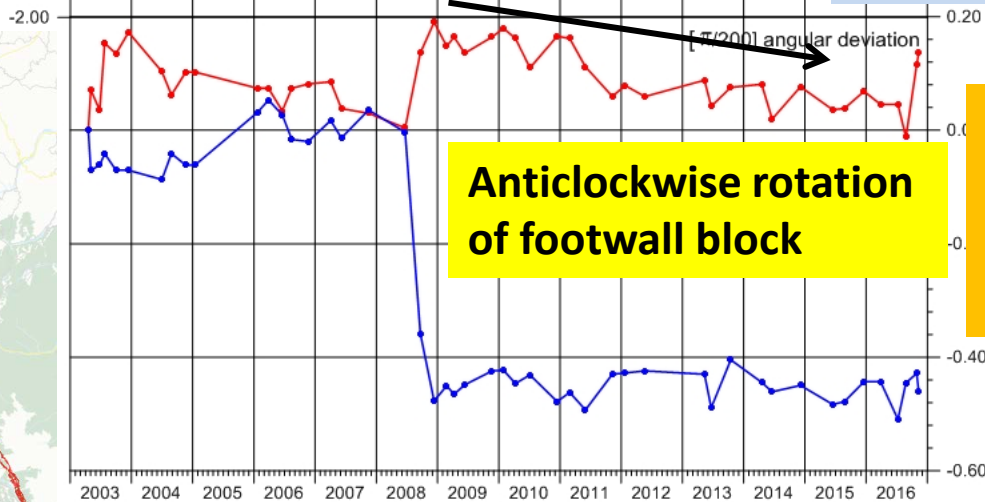


Colfiorito (240°/70°) x y z

[mm] displacement x,y,z



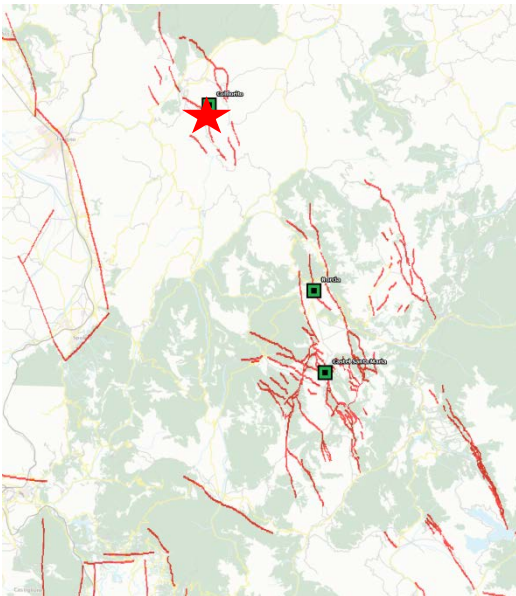
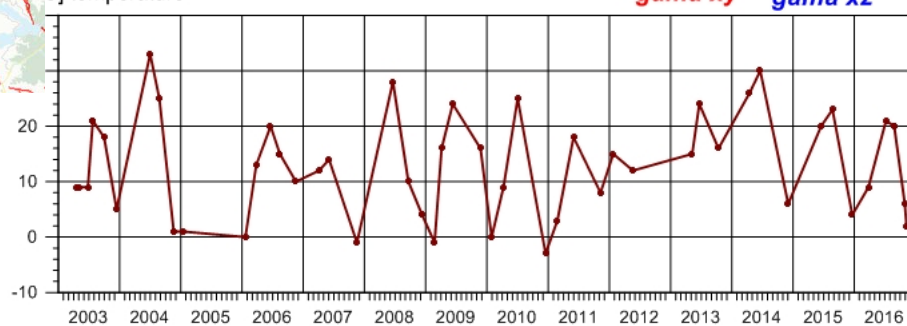
Fault slip during earthquakes

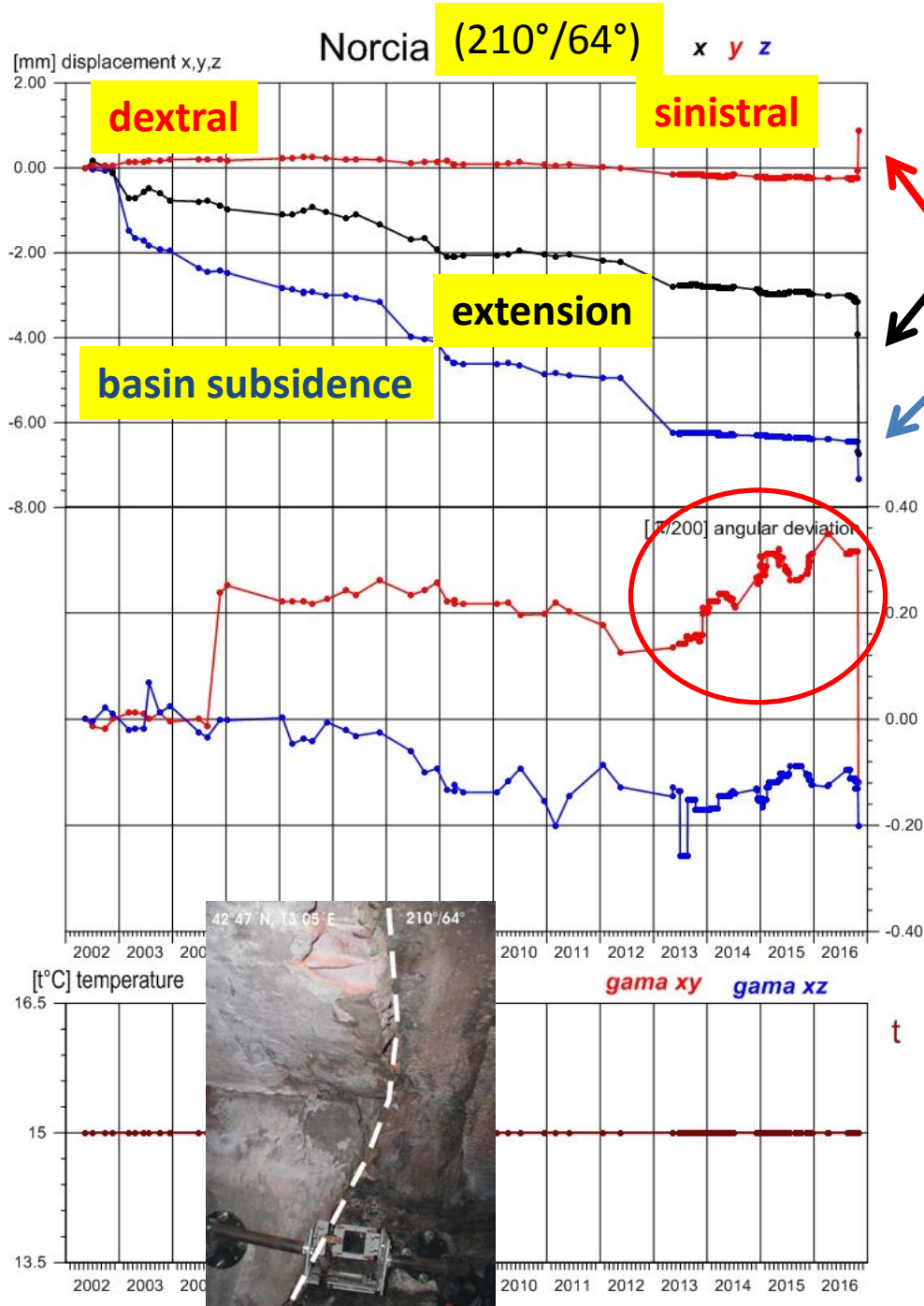


Dextral thrusts about 0.5 mm and less than 0.1 mm (fault extension 0.6mm)

Clockwise rotation of footwall block

C) temperature





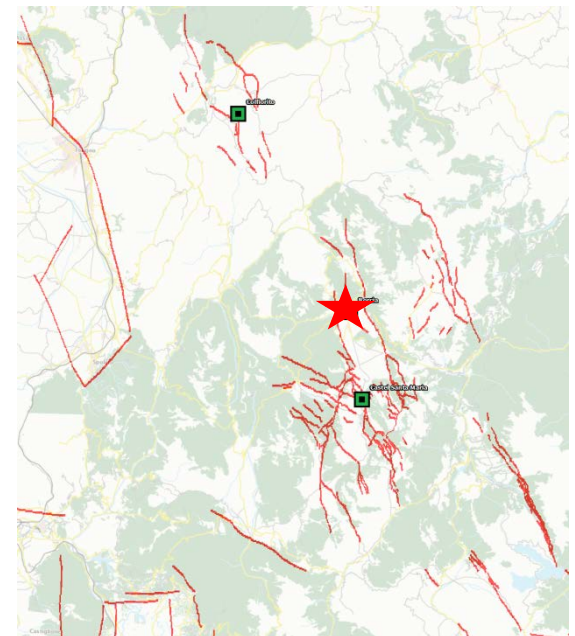
Fault slip during earthquakes

Fault extension about 1 mm and 3 mm

Dextral dip-slips about 0.2 mm and 1 mm

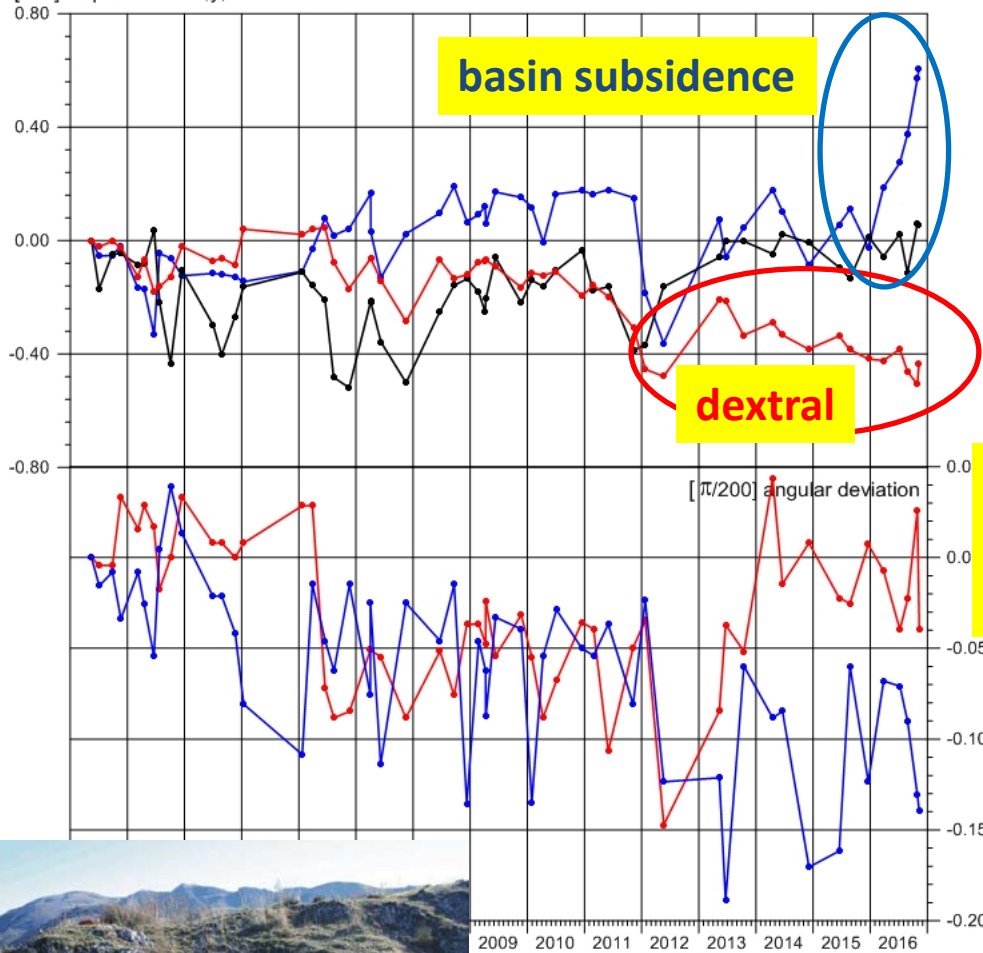
First without rotation

Anticlockwise rotation of footwall block



Santa Maria (243°/63°)

[mm] displacement x,y,z



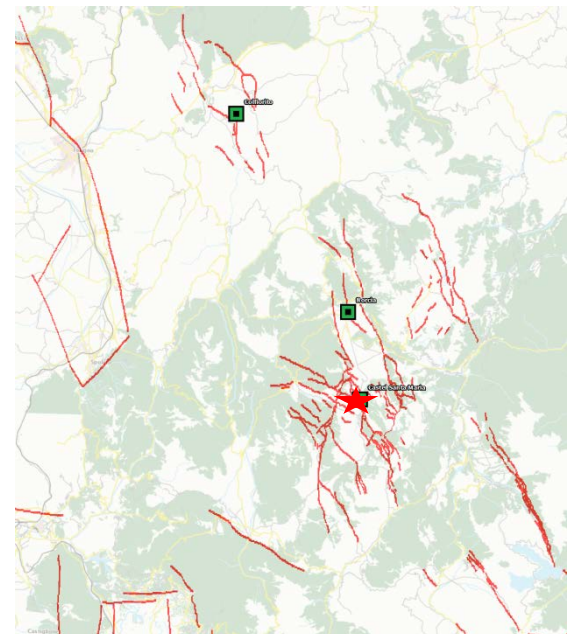
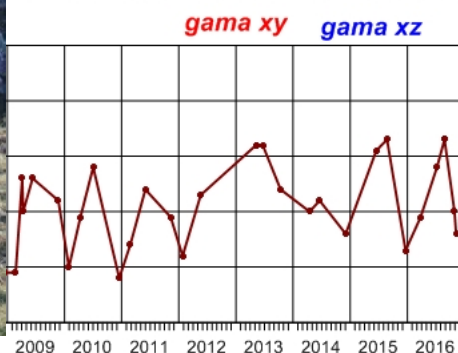
Fault slip during earthquakes

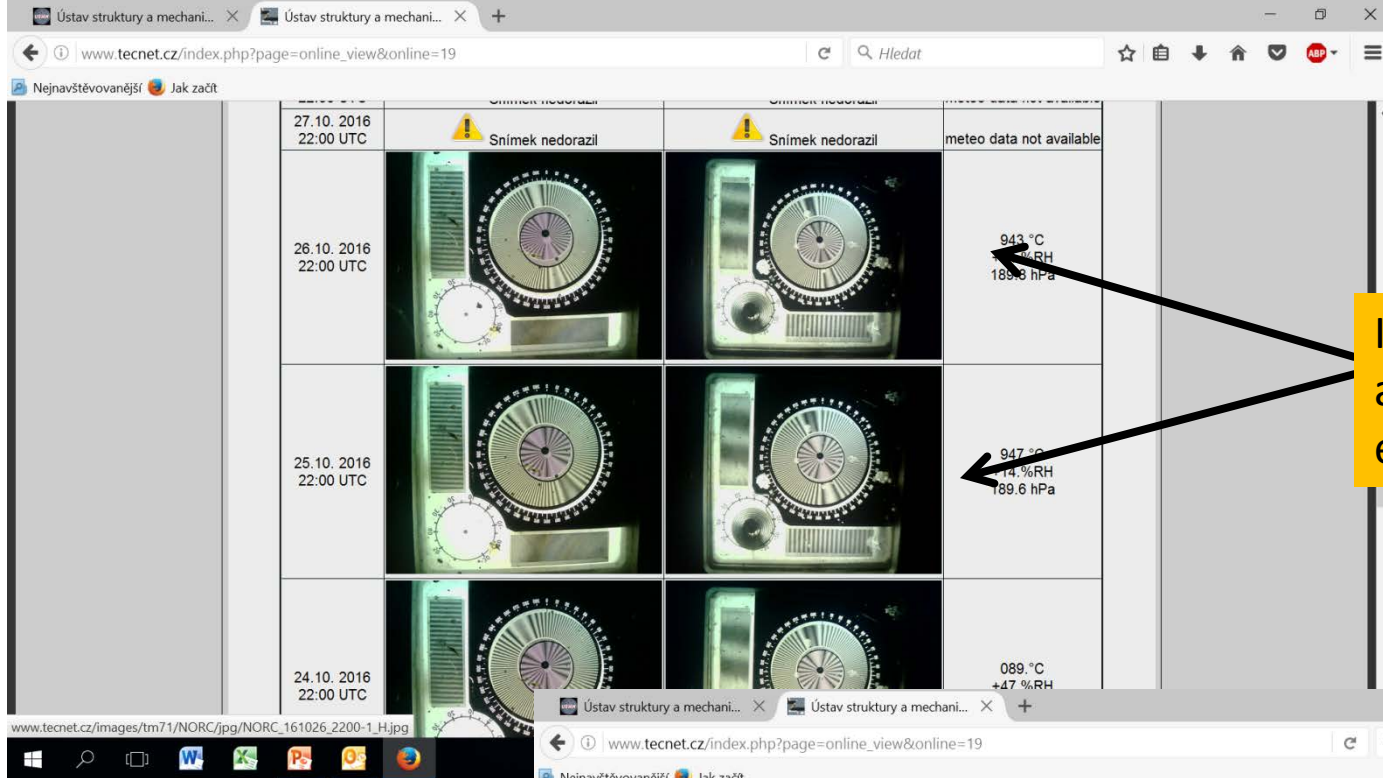
Dip-slip about 0.2 mm (small dextral, fault extension)

Sinistral strike-slip less than 0.1 mm (small dip slip, fault compression)

Anticlockwise rotation of footwall block

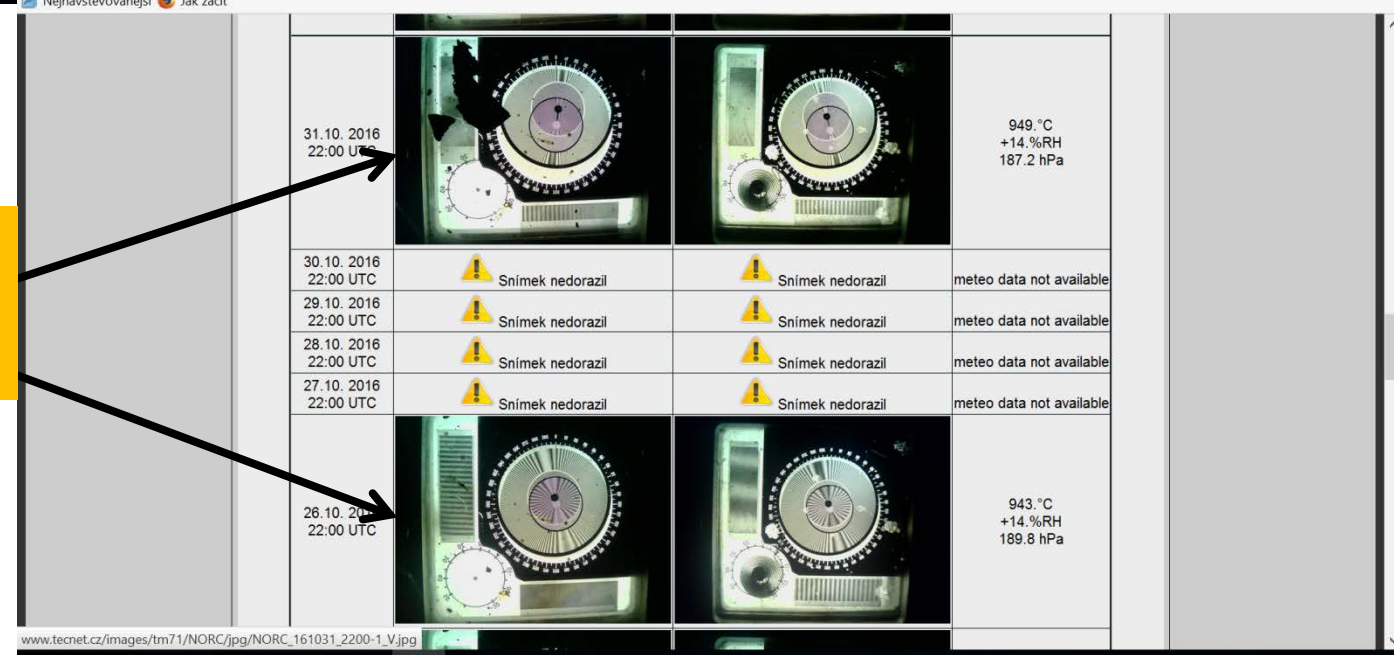
Clockwise rotation of footwall block





Interference's difference
after October 26, 2016
earthquake

Interference's difference
after October 30, 2016
earthquake



Castello Santa Maria





Norcia