

## **7 Pre - The Bradanic Trough: stratigraphic response to subsidence, shortening and uplift of the Quaternary south-Apennines foreland-basin**

**Excursion Leaders: Marcello Tropeano (Un. Bari), Luisa Sabato (Un. Bari), Domenico Chiarella (Royal Holloway, Un. London), Sergio G. Longhitano (Un.**

Proposed Excursion Dates: 10-13 July 2023

Definitive cost per head: € 450

### **Proposer Contact Details:**

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### **Description**

Aim of the field trip is to discuss the south Apennines Quaternary foredeep evolution showing stratigraphic and sedimentologic features of practically undeformed to tectonized successions cropping out in some selected areas of the Basilicata Region (southern Italy).

The first day (10 July 2023), moving from Bari to Matera, we will cross from E to W the Apulian Foreland looking out the Bradanic Trough (the Quaternary south Apennines foreland-basin). We will apply sequence stratigraphy principles observing the response of Quaternary carbonate systems to a severe foredeep subsidence. The second day (11 July 2023), we will move from Matera to the chain front (Acerenza), to discuss sedimentology and stratigraphy of Quaternary tide-influenced systems developed on moving thrusts (wedge-top area). In the afternoon we will move to Genzano di Lucania, where coarse-grained deposits represent the oldest undeformed deposits of the top of the Bradanic Trough (end of shortening?).

The third day (12 July 2023), we will move from Matera to the Sant'Arcangelo Basin, the widest Quaternary satellite basin of the south Apennines foreland-basin system. Growth structures affecting the basin and the sedimentary response to tectonics will be the main topics of the day.

The fourth day (13 July 2023) we will move from Matera to Grassano, where the village was built inside and on a very small Gilbert type delta ("I Cinti" locality). A panoramic view from the chain front to the Ionian Sea will lead us to discuss about the middle-late Quaternary uplift-related staircase of terraced marine deposits developed in the hinterland of the Taranto Gulf. In the late morning we will move to Rome by bus.

Please submit this form electronically to the Chair of the INQUA Excursions Committee: [emanuela.falcucci@ingv.it](mailto:emanuela.falcucci@ingv.it)

The proposal will be reviewed by the INQUA meetings committee.

*The rupestrian old town of Matera  
(the "Sassi" districts)  
dug into Quaternary rocks*



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