

Title: “Fluid-melt/rock interaction at subduction zones”.

Localities: “Erro Tobbio Unit (Ligurian Western Alps - Gorzente - Field leaders: Marco Scambelluri and Nadia Malaspina) and Borgo outcrop (Italian Central Alps - Alto Lario - Field leaders: Nadia Malaspina and Stefano Zanchetta)

Dates: 23-24 June 2025 (with arrival on the 22nd afternoon/evening in Genova)

Day one: we will focus on the main structural and petrologic features related to subduction-dehydration of serpentinitized oceanic mantle that was originally part of the Mesozoic Ligurian Tethyan Ocean. The general geology and the exhumation processes of the high-pressure ophiolites of western Liguria will be also discussed.

Day two: we will see a unique example of high pressure melting of a mafic crust and the direct interaction between melts and associated garnet peridotites. We will discuss how this location could represent a proxy of a slab-mantel interface during a warm subduction in the Alps.

Costs will cover one night in Genova (22nd June), transfer from Genova to Gorzente River and to Como Lake, dinner and night in Domaso area (23rd June) and possible travel back to Genova (24th June).

Maximum number of participants is 25-30 and the field trip requires a medium level of mountain training, particularly to reach Borgo outcrop.