



## Seminario

### **Crust-mantle transformations in the Nonsberg-Ulten continental subduction zone**

Giovedì, 29 novembre 2018 – ore 16:30

Aula Arduino

Relatore: **Roberto Braga**

*Università di Bologna*

*Dipartimento di Scienze Biologiche, Geologiche e Ambientali*

#### **Abstract:**

Crust mantle associations are relatively common in exhumed (ultra)high-pressure metamorphic terrains. Thorough studies on these terrains are a hot topic in geosciences, and provide insight into the metamorphic and metasomatic processes at the interface between subducted crust and the mantle wedge.

During the last three decades the Nonsberg-Ulten zone emerged as a geological primer for testing ideas on the crust-to-mantle mass transfer, especially on the action of C-O-H fluid on peridotite assemblages. In this talk I will rather focus on the transformations of the subducted crust when it slides beneath the wedge. In the Nonsberg-Ulten zone the continental crust ranges from garnet-staurolite paragneiss to garnet-kyanite fels produced by partial melting and melt extraction from the source rock (restite). I will explore some important implications that this 'barrowian transformation' of the continental crust bears on the metasomatic and metamorphic processes of wedge peridotites.

**Proponente:** Omar Bartoli