# STRUCTURE AND COMPOSITION OF THE LOWER CONTINENTAL CRUST

Geological, petrological, geochemical and geophysical perspectives

## Pavia, 7-10 October 2019 – Palazzo Vistarino

### Monday 7th October

12.00: Registration and icebreaker party (lunch)

13.45: Introduction to the School

14.00: Matthew D. Jackson (Imperial College, London) - *Mush reservoirs or magma chambers - How is magma stored in the continental crust?* 

15.00: Matthew D. Jackson (Imperial College, London) - *Physical controls on magma storage, differentiation and mobilisation in the continental crust* 

16:00: coffee break and poster session

16.30: Silvano Sinigoi (University of Trieste) - Evolution of transcrustal magma(s): the case of the Sesia Magmatic System

17.30: Bruna B. Carvalho (University of Padova) - Fluid regime during anatexis of the deep crust: clues from melt and fluid inclusions

18:30: end of lectures and poster session

#### Tuesday 8<sup>th</sup> October

07:45: departure from Castello Visconteo – Piazza Castello (in front of the castle) 10:00-17:30: Field trip in the Ivrea-Verbano Zone. Field leaders Silvano Sinigoi (University of Trieste) and Alberto Zanetti (Istituto di Geoscienze e Georisorse - C.N.R., Pavia)

19.30: return to Palazzo Vistarino

#### Wednesday 9th October

09.00: Sandra Piazolo (University of Leeds) - Quantitative Orientation Analysis of Rocks and Minerals: Theory and Background

10.00: Sandra Piazolo (University of Leeds) - Linking quantitative Orientation Analysis of Rocks and Minerals to geodynamic processes: Examples and future applications

11.00: coffee break and poster session

11.30: György Hetényi (University of Lausanne) - *Geophysical investigation of the lower continental crust: tools and their limitations* 

12.30: lunch time

14.00: György Hetényi (University of Lausanne) - *Geophysical investigation of the lower continental crust: results and questions* 

15.00: Sandra Piazolo (University of Leeds) - The Rheology of the Lithosphere: the importance of the Lower Crust

16.00: coffee break and poster session



#### Dottorato in Scienze della Terra e dell'Ambiente

16.30: Sandra Piazolo (University of Leeds) - *Rheology of the Lower crust: Scenarios and Measurements* 

17.30: Paolo Scardina (Agilent Technologies) - The wild open field ahead-pushing the limits of QQQ-ICP-MS

18.00: end of lectures and poster session

19.30: Social party at "Il Caffè all'Università" – Strada Nuova 65 (Università Centrale, Cortile dei Tassi)

## Thursday 10<sup>th</sup> October

09.00: Thomas Zack (University of Gothenburg) - New dating methods for investigating lower crust

10:00: Antonio Langone (Institute of Geosciences and Earth Resources, CNR Pavia) - *U-Th-Pb geochronology of zircon and monazite in the lower continental crust: role of high temperature and deformation* 

11.00: coffee break and poster session

11:30: Roberto Braga (University of Bologna) - A complex mixture of rocks: Migmatites and their field significance

12.30: lunch time

14.00: Bernardo Cesare (University of Padova) - *Melt Inclusions in Migmatites and Granulites* 

15:15: Roberto Braga (University of Bologna) - The Migmatite Value Chain: the lower crust evolution of the Ulten Zone

16.30: end of School