



University of Genova

Department of Earth, Environmental
and Life Sciences

Doctorate Course in Earth and
Environmental Science and
Technology

Università degli Studi di Genova



Dottorato in Scienze e Tecnologie
per l'Ambiente e il Territorio

Earth Science Curriculum

Research Theme n. 1

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| <p>Titolo: Stratigrafia, facies e (bio)diversità dei depositi prossimali della trasgressione oligocenica in Liguria e Piemonte meridionale: Calibrazione biostratigrafica e ricostruzioni paleoambientali ad alta risoluzione.</p> <p>Title: Timing, facies and (bio)diversity of the shallow marine deposits of the Oligocene transgression in Liguria and southern Piedmont: coupling biostratigraphic data and high resolution palaeoenvironmental reconstructions</p> |
| <p>Tutor and co-tutor Antonino Briguglio: Antonino.briguglio@unige.it Michele Piazza: michele.piazza@unige.it</p> |
| <p>Program description including the formation program abroad</p> <p>The Oligocene sedimentary deposits cropping out in Liguria and southern Piedmont are often characterized by continental to riverine to shallow marine facies and record a transgression event that moved westward from its oldest deposits north of Genova, to its end near Cuneo. They are lithologically very diverse and encompass from poorly sorted conglomerates to carbonate biohermes/biostromes. These latter can be at time rich in larger foraminifera, calcareous algae and cnidarians, with different degrees of preservations. Whilst cnidarians and red calcareous algae are important facies fossil, larger foraminifera have also a strong biostratigraphic potential. This project aims to use larger foraminifera as index fossils to create a chronostratigraphic map that reconstructs the dynamic of the shallow marine deposits in Liguria and southern Piedmont, and that can help the reconstruction of precise palaeogeographic and palaeoenvironmental dataset. Since all deposits are limited within the Oligocene and might reach the base of the Miocene, the use of Sr stable isotopes to constrain the geochronology of the sites might be a valuable option. For this reason, abroad mobility will be important at various institutions (Univ. Lausanne, Copenhagen Nat.Hist. Museum, Univ. Bonn) where the applicant can get deep insights into various laboratory techniques regarding geochemistry, applied biostratigraphy and precise palaeogeographic datasets.</p> |
| <p>Financial support: The tutors have sufficient financial support to dedicate to the candidate research, travel plans as well as result dissemination</p> |
| <p>Tutor's publications MAXIMUM 3</p> <ul style="list-style-type: none">• Briguglio, A., Vannucci, G., Bruzzone, C., Piazza, M., 2021, Stratigraphic development of a late oligocene reef complex under strong fluvatile influence in the tertiary piedmont basin (liguria, NW Italy). <i>Micropaleontology</i>, 2021, 67(4), pp. 315–339• Briguglio, A., Crobu, S., Lutaj, E., Piazza, M., 2021, Integrated stratigraphy from a transgressive upper Oligocene section in NW Italy. <i>Stratigraphy</i>, 2021, 18(2), pp. 123–137 |