



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. 4

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| Titolo (Italiano): Paleoeologia evolutiva nei foraminiferi preservati in un delta antropizzato. Title (inglese): Evolutionary palaeoecology of deltaic foraminifera in anthropogenically active settings. |
| Tutor (name and email) and eventual co-tutor Antonino Briguglio: Antonino.briguglio@unige.it Marco Capello: marco.capello@unige.it |
| Program description including the formation program abroad (Inglese) This project is aimed to tackle benthic community variation along sedimentary cores collected along an offshore transect in the Tigullio gulf (NW Italy). The identification at species level of the entire benthic community of major fossiliferous groups (i.e., foraminifera and ostracoda) will shed light on opportunistic versus generalistic taxa and their variation through time and space will increase our knowledge on key indicator for stressed versus pristine environmental conditions. The outcomes will be of pivotal importance to establish a new set of reference taxa that might enable historical biomonitoring in both marine protected areas and heavily polluted sites using palaeontological data. Specifically, the candidate will have the opportunity to study already sliced cores collected along an environmental gradient and pick completely the biogenic particles preserved. The three years candidature will include a specific 1-month full time training at the International School of Foraminifera (06/2022) (scholarship available), 2 months training in taphonomic process in Florida (US) (07-08/2022) (scholarship available) and few weeks experience at the Anton Dhorn station (NA, It) and at the University of Urbino (DISPeA). |
| Collaboration and abroad experiences: <ul style="list-style-type: none">• Florida Museum of Natural History: collaboration on palaeoecological applications• JAMSTEC (JP): collaboration on geochemical applications on foraminifera.• Vienna University: collaboration on actuopaleontology and palaeoecology. |
| Financial support: departmental funds available |
| Tutor's publications: Zaini, N., Briguglio, A., Goeting, S., Roslim, A., Kocsis, L. (2020): Sedimentological characterisation of sea bottom samples collected offshore Muara and Tutong, Brunei Darussalam. Bulletin of the Geological Society of Malaysia, 2020, 70, pp. 139–151 S. Consani, L. Cutroneo, C. Carbone, M. Capello (2020). Baseline of distribution and origin of Rare Earth Elements in marine sediment of the coastal area of the Eastern Gulf of Tigullio (Ligurian Sea, North-West Italy). Marine Pollution Bulletin, 155 DOI 10.1016/j.marpolbul.2020.111145 L. Cutroneo, C. Carbone, S. Consani, M. Capello (2020). Sediment distribution on the continental shelf in relation to stream inputs and contamination: hydrodynamic, chemical, mineralogical, and sedimentological characteristics (Ligurian Sea, Italy). Environmental Science and Pollution Research. 27:43755–43768. DOI: 10.1007/s11356-020-10259-4 |