



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. 2

<p>Titolo: Calibrazione di metodi empirici per la stima rapida di parametri sismici ed applicazione all'Italia Settentrionale Title Calibration of empirical methods for rapid estimates of seismic parameters and application to Northern Italy</p>
<p>Tutor and eventual co-tutor Daniele Spallarossa daniele.spallarossa@unige.it Lucia Luzi lucia.luzi@ingv.it Marco Massa marco.massa@ingv.it</p>
<p>Program description including the formation program abroad</p> <p>The study will concern the calibration of seismological parameters, aimed at improving the knowledge of an area of Northern Italy between Milano (to the west), the Euganean Hills (east), Mantova (south) and the Trento area (north). The work will consist in the development of a seismological data set starting from the 2000s to calibrate velocity models and empirical relationships for the determination of parameters of seismic sources and attenuation. The activity will be part of the INGV <i>Pianeta Dinamico</i> project, which will comprehend the creation of a multiparametric monitoring infrastructure aimed at improving the performance of the existing seismic monitoring system.</p>
<p>Financial support by the Istituto Nazionale di Geofisica e Vulcanologia (INGV) – Institutional Fund</p>
<p>Tutor's publications (max 3)</p> <p>Spallarossa D., Picozzi M., Scafidi D., Morasca P., Turino C., Bindi D. (2021). The RAMONES Service for Rapid Assessment of Seismic Moment and Radiated Energy in Central Italy: Concepts, Capabilities, and Future Perspectives. <i>Seismological Research Letters</i>, 92 (3): 1759–1772. https://doi.org/10.1785/0220200348.</p> <p>Mascandola C., Massa M., Barani S., Albarello D., Lovati S., Martelli L., Poggi V. (2019). Mapping the Seismic Bedrock of the Po Plain (Italy) through Ambient-Vibration Monitoring. <i>Bulletin of the Seismological Society of America</i>, 109 (1), 164–177.</p> <p>Massa M., Mascandola C., Ladina C., Lovati S., Barani S. (2017). Fieldwork on local-site seismic response in the Po Plain: examples from ambient vibration array and single station analyses. <i>Bulletin of Earthquake Engineering</i>, vol. 15, pages 2349–2366.</p>