

POST_DOC Position “A digital framework for the cutting of soft tissues: A first step towards virtual surgery” @ University of Genoa (Italy)

The Department of Civil, Chemical and Environmental Engineering (DICCA) of the University of Genoa (UNIGE) is offering a post-doc position within the 2-years research project PRIN PNRR 2022 “A digital framework for the cutting of soft tissues: A first step towards virtual surgery” focused on multiscale modeling of the complete cutting process in human brain tissues.

The Department invites expressions of interest from qualified PhDs in the fields of Solids Mechanics, Mathematical Physics, Computational mechanics and Biomechanics in view of the forthcoming opening of a 1-year Post-Doc position aimed at the development of the scheduled activities in the field of constitutive modelling of soft tissues. The research unit is coordinated in Genoa and in by Dr. Vito Diana (PI, national coordinator of the project), in collaboration with Prof. Ugo Galvanetto (UNIPD), Prof. Luigi Gambarotta (UNIGE) and Prof. Andrea Bacigalupo (UNIGE).

Candidate’s profile

The Department is mainly interested in collecting initial expressions of interest from PhDs with a documented scientific experience in the study and development of physical-mathematical and computational models for describing the mechanics of soft tissues, with specific emphasis on peridynamic material modeling. The main objective is to develop a constitutive correspondence framework in such a way to combine classical material models for brain tissues with the inherent capabilities of peridynamics to model (possibly evolving) discontinuities.

The Department is open to consider candidates with research interests in closely related topics yet in the fields of Applied Mechanics, Computational Mechanics, Material Engineering.

The ideal candidate should have a significant record of accomplishments in research, with publications in leading peer-reviewed journals and conferences, as well as demonstrated capabilities in carrying out research tasks with independence and initiative. An excellent command of English (both oral and written) is required.

Job qualification

The successful candidate is expected to play an active role in developing the tasks and the objectives of the research project, under the supervision of Dr. Vito Diana (national coordinator of the project) and the other member of the Research Group. Availability to collaborate with researchers based in Departments of other Universities and associated with the project is required. Enthusiasm, decision making, problem solving and team working attitudes are welcome skills. The 1-year extension of the position is possible pending demonstrated achievements.

After the closure of the present call for expressions of interest, the Department will issue a formal Call for Applications, as required by the Italian laws for academic employment. The call is expected to be opened in the first months of 2024.

How to express your interest:

Interested candidates with the PhD are invited to send an email to Dr. Vito Diana (vito.diana@unige.it) with subject line "Call for a Postdoc position", including their CV with the following information:

- complete personal details and contact information (email, phone, skype id)
- education, qualifications and research experience
- complete list of publications.