

LUCA DI STASIO
Postdoctoral Researcher

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Dear Hiring Team,

My Ph.D. in Materials Science and Engineering and more than 2 years as a postdoctoral fellow in computational solid and fluid mechanics and advanced fracture mechanics, along with my multidisciplinary engineering background, provide me with the skills to contribute to the design and development of electromagnets for particle accelerators as part of the mechanics design team at Danfysik in a Mechanical Engineer capacity.

During my professional journey I contributed to projects in several fields, from ankle biomechanics to the design of nano-sized electromagnetic sensors, from modeling and prediction of damage in fiber-reinforced composites to multi-scale modeling of wood, from coupled fluid-structure interaction to large displacement analysis of cracking in hydrogels. I offer proficiency in several CAD and CAE tools, as well as computational methods of solid mechanics (FEM, BEM), fluid mechanics (LBM, FVM), fracture and damage mechanics (CZM, VCCT, J-integral, interaction integrals), mesh generation and computational geometry (Delaunay triangulation, transfinite interpolation, elliptic/parabolic/hyperbolic mesh smoothing). I have multiple years of experience in mechanical testing and I am expert in several programming languages, as outlined in my CV.

The opportunity of living and working in several countries has allowed me not only to become fluent in different languages but most importantly to master cross-cultural communication skills. Flexibility, adaptability, and rapid response to change are qualities that I have nurtured by navigating multiple work environments. Honesty, transparency, and a positive attitude towards challenges have helped me earn the trust of colleagues and management alike. The ability to communicate candidly in the workplace has allowed me to build a broad network across different countries and scientific fields.

I am eager to put my skills and experience in service of Danfysik's mission, and I am confident we should arrange a time to meet. In the meantime, I wish to thank you for taking the time to consider my application and review my qualifications.

Sincerely,
Luca Di Stasio