After achieving my MSc in Industrial Engineering at the University of Ferrara in Italy, it took me a couple of years of research activity to realise how I was getting more and more fascinated by the fundamental understanding of structural integrity problems. Because of that, I moved to Oxford to pursue a DPhil in Engineering Science at Trinity College, where I graduated in 2017. Since the completion of my doctorate I have been working at the Engineering Department of the University of Oxford as PostDoctoral Research Assistant. In August 2018 I obtained my Chartered Engineering (CEng) registration. In September 2018 I have been appointed as Lecturer at Lady Margaret Hall college of the University of Oxford, where I have been teaching mechanics of materials, dynamics and materials to first-, second- and third-year undergraduate students.

My research mainly focuses on the evaluation and modelling of residual stress across the scales, as well as fatigue and fracture problems in processed, welded and additively manufactured metallic materials. I am also interested in biomaterials with hierarchical structure (i.e. human teeth and bamboo) and shape memory effect in polymeric materials. I am often involved in industry-oriented projects aimed at assessing the performance of engineering components and structures, particularly for aerospace applications.

A wide range of experimental techniques, at length-scales ranging from macro- nano-scale, are usually involved in my experimental work (e.g. synchrotron-based X-ray, Electron/Ion Microscopy and related techniques, static and cyclic load-controlled tests etc). I also enjoy using Finite Element Methods for the numerical modelling of results from experiments.

I appear either as lead author or co-author in more than 40 papers published in peer-reviewed international journals or conference proceedings.