

Riccardo Casati is currently working as Associate Professor at Politecnico di Milano. He has an established experience in process, mechanical and physical metallurgy. His research deals with the evolution of microstructure and properties of metallic materials during manufacturing and service. His studies were mainly focussed on the design, development and improvement of performance of advanced alloys and nano-functionalized composites prepared by unconventional processing routes, including powder metallurgy, severe plastic deformation, and additive manufacturing processes. He carried out theoretical and experimental investigations on several structural metals (Al, Fe, Ti, Ni and Mg alloys) and functional materials, including shape memory alloys and biodegradable metals. He has focused on several aspects including fracture, fatigue and mechanical behaviour of materials and on microstructure evolution of alloys by means of XRD, DSC, FE-SEM and TEM analyses and software for thermodynamic calculation based on Calphad method.