

Giovanni Bolelli graduated in Materials Engineering at the University of Modena and Reggio Emilia in 2003 and obtained a Ph.D. in Materials Engineering at the same university in 2008. Since 18/11/2022, he is Associate Professor of Materials Science and Technology at the Department of Engineering “Enzo Ferrari”, University of Modena and Reggio Emilia.

The main research interests are in the fields of surface engineering, coatings, and tribology:

- Fundamental and applied research on the development and optimization of coatings for mechanical engineering and energy production applications (friction and wear control, corrosion mitigation, protection against oxidation and hot corrosion) and functional applications.
- Development of critical materials-free coatings: including the replacement of critical raw materials (CRMs) and toxic materials.
- Tribology of industrial systems, e.g. characterization of the tribological behaviour of polymers and polymer-based composites sliding against various counterparts.
- Microstructural, micromechanical and functional testing of coatings and surface treatments.
- Finite element modelling of the thermomechanical behaviour of coatings and of particle-based coating deposition processes (e.g. thermal spraying).

The teaching activities include courses at the bachelor and master level on Tribology and Materials Engineering-related topics.

He has acted as coordinator or local unit coordinator in national (PRIN) projects and coordinates the Horizon Europe (HE) project “Integrated Computational-Experimental material Engineering of Thermal Spray coatings (CoBRAIN)”.

He has published more than 150 papers on international peer-reviewed scientific journals and is the Lead Editor of the “*Journal of Thermal Spray Technology*”.