

Main research areas

Prof. Filippo Berto

He is author of more than 500 technical papers, mainly oriented to materials science engineering, the brittle failure of different materials, notch effect, the application of the finite element method to the structural analysis, the mechanical behaviour of metallic materials, the fatigue performance of notched components as well as the reliability of welded, bolted and bonded joints. Since 2003, he has been working on different aspects of the Structural Integrity discipline, by mainly focusing attention on problems related to the static and fatigue assessment of engineering materials and components.

Prof. Berto's areas of expertise can be summarised as follows:

- Fracture mechanics
- Fatigue design
- Notch mechanics
- Local approaches for fatigue design
- Welded and bolted connections
- Advanced materials and their mechanical behavior
- Fracture and Fatigue behaviour of additively manufactured materials
- Mechanical behavior of nuclear materials
- Environmental effects on fracture and fatigue
- Hot-dip galvanized steels