

# CV Dr. Filippo Berto



Filippo Berto got his degree summa cum laude in 'Management Engineering' in 2003 at the University of Padua. After attending the PhD course on 'Design Machine' at the University of Firenze, he has been working as a researcher in 'Machine Design' at the University of Padua.

Since 2006 he has been assistant professor of Machine Design at the University of Padova, Department of Management and Engineering, Vicenza.

Since 2007 he teaches 'Machine Design' at the bachelor in Mechatronic Engineering and (since 2008) Advanced mechanical design at the Master in Mechanical Engineering.

Since 2014 he has been associate professor of Machine Design at the University of Padova, Department of Management and Engineering, Vicenza.

He is author of more than 200 technical papers, mainly oriented to 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. In particular, he has attempted to devise engineering methods suitable for designing components (experiencing different kinds of stress concentration phenomena) against fatigue as well as against static failures. According to his modus operandi, he has performed both theoretical and experimental investigations and all the design methods he has formalised so far have always been validated through a systematic experimental work.

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

- Local approaches based on strain energy density
- Mechanical properties of engineering materials
- Design against fatigue under multiaxial fatigue loading
- Design against uniaxial/multiaxial fatigue in the presence of stress concentration phenomena
- Material cracking behaviour under uniaxial/multiaxial fatigue loading
- Fracture Mechanics (under both static and fatigue loading)
- Uniaxial/multiaxial fatigue assessment of welded components
- Design against high-cycle fatigue
- Fracture assessment of functionally graded materials with crack divider or crack arrester configuration
- Static assessment and cracking behaviour of brittle and ductile notched materials
- Dentistry materials
- Three-dimensional effects in cracked and notched plates
- Meso-mechanical theoretical models.
- Fatigue of roll cylinders materials at elevated temperature

Since 2004, **139 papers** have been published on international Journals (see Scopus database, Author ID 10042142600). Scopus database gives **1900 citations** (including self-citations) and **H-index=28**

Since 2004, **108 papers** have been published on ISI journals. Web of Science gives **1800 citations** in international journals (included those due to the author) and **H-index=27**.