



Name

Carmine Maletta

Role

Assistant Professor

Short CV

EDUCATION

- **Ph.D.:** Engineering Materials and Structures - University of Calabria (Italy), 2005;
- **Master Degree:** Mechanical Engineering (summa cum laude) - University of Calabria (Italy), 1999;

WORK EXPERIENCES

- **04/2016-Current:** Cooperative Associate at CERN (Geneva);
- **01/2005-Current:** Assistant professor of Machine Design at University of Calabria (Italy);
- **10/2002-10/2005:** PhD Student at University of Calabria (Italy);
- **09/2001-12/2001:** Visiting PhD Student at the Fraunhofer Institute LBF for Structural Durability and System Reliability, Darmstadt (Germany);
- **12/2000-10/2002:** Business consultant at Accenture S.p.A., Rome (Italy).

Teaching Activity

Professor of the following courses:

- *Selection of Engineering Materials*, Master's Degree in Mechanical Engineering;
- *Mechanical Construction Techniques*, Bachelor's Degree in Mechanical Engineering.

Selected Publications

1. Sgambitterra, E., Maletta, C., Furgiuele, F.. *Temperature dependent local phase transformation in shape memory alloys by nanoindentation*, *Scripta Materialia*, 101 (2015) 64-67.
2. Faraji, A.H., Goodarzi, M., Seyedein, S.H., Barbieri, G., Maletta, C.,. *Numerical modeling of heat transfer and fluid flow in hybrid laser-TIG welding of aluminum alloy AA6082*. *International Journal of Advanced Manufacturing Technology*, 60/1 (2016) 137-151
3. Maletta, C., Bruno, L., Corigliano, P., Crupi, V., Guglielmino, E.. *Crack-tip thermal and mechanical*

- hysteresis in shape memory alloys under fatigue loading. Materials Science and Engineering A, 616/1 (2014) 281-287.*
4. *Maletta, C., Sgambitterra, E., Furgiele, F., Casati, R., Tuissi, A., Fatigue properties of a pseudoelastic NiTi alloy: Strain ratcheting and hysteresis under cyclic tensile loading. International Journal of Fatigue, 66 (2014) 78-85.*
 5. *Maletta C, Sgambitterra E, Furgiele F, Casati R, Tuissi A. Fatigue of pseudoelastic NiTi within the stress-induced transformation regime: a modified CoffinManson approach. Smart Materials and Structures 21 (2012)*
 6. *Maletta C, Furgiele F (2010). Analytical modeling of stress-induced martensitic transformation in the crack tip region of nickel-titanium alloys. Acta Materialia 58 (2010) 92-101.*

Research Lines

- Numerical methods for structural engineering;
- Advanced and functional materials (ceramics, composites, shape memory alloys);
- Fatigue and fracture of engineering materials.