

SUSANNA LAURENZI

Assistant Professor in Aerospace Structures

March 2011 - Present

Department of Astronautic, Electrical and Energy Engineering, Sapienza Università di Roma, Italy

EDUCATION

Ph.D. in Aerospace Engineering

December 2007

School of Aerospace Engineering, Sapienza Università di Roma, Italy

Thesis: "*Liquid Composite Molding technologies applied to aerospace structures. Case studied: Helicopter A109 gearbox*". Advisers: Prof. Mario Marchetti (Sapienza Università di Roma), Eng. Emanuel Anamateros (AgustaWestland), Prof. Suresh Advani (Center for Composite Materials, University of Delaware, USA)

Specialist Post-Laurea Degree (M.S.) in Astronautic Engineering

May 2004

School of Aerospace Engineering, Sapienza Università di Roma, Italy. Magna cum Laude

Thesis: "*Liquid Injection Molding technology for aerospace application: design and manufacturing of a helicopter component*". Adviser: Prof. Mario Marchetti (Sapienza Università di Roma); Co-adviser: Eng. Emanuel Anamateros (AgustaWestland)

Laurea (B.S./M.S.) in Aerospace Engineering

December 2001

Sapienza Università di Roma, Italy

Thesis: "*Design and realization by Resin Transfer Molding of a BA 609 inboard flaperon*". Adviser: Prof. Mario Marchetti (Sapienza Università di Roma); Co-advisers: Eng. Roberto Severoni and Eng. Emanuel Anamateros (AgustaWestland)

EXPERIENCE

Researcher

July 2006 – February 2011

Centro Sviluppo Materiali S.p.A., Rome, Italy

Division: Aerospace and Defence. Head of Laboratory on Composites Science and Nanotechnology

Research Assistant (visiting)

November 2005 – April 2006

Center for Composite Materials, University of Delaware, USA

Adviser: Prof. Suresh Advani. Funding: research fellowship from Sapienza Università di Roma

Doctoral Fellow

March 2003 – June 2006

School of Aerospace Engineering, Sapienza Università di Roma, Italy

Adviser: Prof. Mario Marchetti. Funding: research fellowship from Sapienza Università di Roma

Research Assistant (visiting)

August 2002 – February 2003

Center for Composite Materials, University of Delaware, USA

Adviser: Prof. Suresh Advani. Funding: Office of Naval Research (U.S. Navy)

TEACHING ACTIVITIES

“Nanotechnology” (Astronautic Engineering degree) **2011 – 2012**
Department of Astronautic, Electrical and Energy Engineering, Sapienza Università di Roma

“Composites and Nanotechnology for Aerospace” (Master I level) **2008 – 2009**
School of Aerospace Engineering, Sapienza Università di Roma

Post-Laurea Training “ELIMAT” **2007 – 2008**
Centro Sviluppo Materiali S.p.A. (Rome, Italy)

Teaching Assistant, School of Aerospace Engineering, Sapienza Università di Roma **2004 – 2005**
Courses: Space Structures, Aerospace Technologies and Materials

Laboratory Tutor, Aeronautic High School “Galileo Galilei” (Rome, Italy) **2004 – 2005**
(summer sessions)

Laboratory Tutor, Department of Mechanical Engineering, University of Delaware (USA) **2002**

MAIN PROJECTS AND ROLES

- Scientist in charge of **“SEGREDIFESA” project** for Centro Sviluppo Materiali S.p.A. in collaboration with Sapienza Università di Roma, 2007 – 2011. The project concerned the development of Kevlar ballistic plates reinforced with CNTs.
- **Visiting researcher at VESUVIUS USA** (Pittsburgh, USA) for Centro Sviluppo Materiali S.p.A., 2010. The research was focused on the effect of manufacturing on carbon bonding.
- Scientist in charge of **“ELIMAT” project** for Centro Sviluppo Materiali S.p.A., 2006 – 2011. The project investigated the design, fabrication and testing of helicopter structures by RTM and IM processes.
- Scientist in charge of **projects with AGUSTAWESTLAND** (Anagni, Italy) for the Department of Aerospace and Astronautic Engineering, Sapienza Università di Roma, 2003 – 2005. Projects investigated the applicability of the RTM process and its variations to the fabrication of helicopter high-performance structures in composite materials.
- Scientist in charge of **MIUR/COFIN project** for the Department of Aerospace and Astronautic Engineering, Sapienza Università di Roma, 2004 – 2005. The project was focused on the numerical and experimental validation of multilayers and anisogrid composite structures for fuselage.
- Scientist in charge of the material and process selection on **project with Italian Space Agency (ASI)** for the Department of Aerospace and Astronautic Engineering, Sapienza Università di Roma, 2004. The project investigated the application of hybrid materials to atmospheric reentry vehicles.

- Scientist in charge of **project with Centro Italiano Ricerche Aerospaziali (CIRA)** for the Department of Aerospace and Astronautic Engineering, Sapienza Università di Roma, 2003 – 2004. Aim of the project was the design and realization of aircraft wing for P180 in composite material by RTM technology.

ADDITIONAL SCIENTIFIC ACTIVITIES

- **Member of Advanced Materials and Enabling Technologies Mindsh@re community (AM&ET)** of Finmeccanica as expert on polymeric composites and delegate of Centro Sviluppo Materiali S.p.A.
- **Member of CFG NANO community (Community Focal Group on Nanotechnology)** of Finmeccanica as delegate of Centro Sviluppo Materiali S.p.A. and expert on carbon nanotubes and carbon bonding
- **Member of Local Organizing Committee** of XVII National Congress on Aeronautic and Astronautic AIDAA, Rome, Italy, September 2003
- **Member of Local Organizing Committee** of ARO Workshop on Robotics and MEMS in Vehicle Systems, Rome, Italy, June 2002