PERSONAL INFORMATION

Teo Mudric

-, Buje, 52460, Croatia

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teo.mudric@oapd.inaf.it

Date of birth 11/09/1985

WORK EXPERIENCE

01/07/2016 - present

Postdoctoral researcher

INAF – National Institute of Astrophysics, Padua, Italy

- Software development and performance tuning in the imaging and photogrammetric field.

01/7/2014 - 30/06/2016

Postdoctoral researcher

University of Padua, Italy

- Development of a coupling between the peridynamics theory and the finite element method.
- Development of a software in Matlab environment that implements the coupling and performs linear static and dynamic structural analysis.
- Application of peridynamics theory to three-dimensional structures through finite element method software.
- Automatic generation of input files, for finite element analysis software, of peridynamics models with routines written in Fortran90.

01/11/2011 - 31/01/2012

Project contract

University of Padua, Italy

- Dynamic analysis of composite plates with Abaqus FEA software.
- Damage detection in fibre reinforced composite plates based on the dynamic response.

EDUCATION AND TRAINING

02/01/2011 – 31/07/2014

PhD in Astronautics and Satellite Sciences

Center for Studies and Activities for Space “G. Colombo”, University of Padua, Italy

- Numerical simulations and experimental tests of high velocity impacts on multilayer composite plate.

04/09/2012, 10/10/2012, 19/11/2012

Use of SonatestVEO and UTStudio for CFC inspection application

IMG Ultrasuoni S.r.l.

- Use of SonatestVEO ultrasonic flaw detector on fibre reinforced composite plates.
- Use of UTStudio software for data analysis from SonatestVEO.

2008 – 2010

Master Degree in Civil Engineering

Faculty of Civil Engineering, University of Rijeka, Croatia

- Structural analysis.
- Finite element method.
- Static analysis and design of concrete, steel and wood structures.

PERSONAL SKILLS

Mother tongue(s) Croatian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
Italian	C1	C2	B2	B2	B2
English	C1	C2	B2	C1	C1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Software Abaqus, Autodyn (Ansis Inc.), MS Office (Word, Excel, PowerPoint), UTStudio (Sonatest), AutoCAD, MathCAD, Staad.Pro, Phantom Camera Control Software

Programming languages

- Matlab
- c#
- Fortran90
- IDL (Interactive Data Language)

Professional competences

- Spice kernels.
- Image analysis methods.
- Finite element method.
- Peridynamics theory.
- Crack propagation analysis with peridynamics theory.
- Coupling of the finite element method and the peridynamics theory.
- Structural analysis.
- Numerical simulations of high velocity impacts on isotropic and orthotropic materials.
- Analysis of damage caused by high velocity impacts.
- Use of ultrasonic flaw detector SonatestVEO for delamination detection in fibre reinforced composite plates.

ADDITIONAL INFORMATION

Conferences presentations

- *64th Aeroballistics Range Association Meeting*, 6-11 October 2013, Destin, FL, United States of America.
- *19th International Conference on Composite Materials*, ICCM19, 28 July - 3 August 2013, Montréal, Canada.
- *15th European Conference on Composite Materials*, ECCM15, 24-28 June 2012, Venice, Italy.

Assistant supervisor

- Master thesis of Garelli M.: “Propagazioni di cricche e impatti con la teoria della Peridinamica in Abaqus”, Spervisor: Prof. U. Galvanetto, University of Padova, Academic year 2014/2015.