

LUCA DI STASIO

Postdoctoral (Experienced) Researcher in Mechanical Engineering

Discovery Boulevard, G-3900, KAUST, Thuwal, Saudi Arabia

Italian & EU Citizen

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Driving License B (IT)

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PROFILE

Industrial engineer and scientific researcher expert in design and multi-physics modelling, I'm a creative problem-solver and challenge-driven. Experienced in conducting innovative projects from conception to exploitation, both as leader and collaborator.

EMPLOYMENT HISTORY

KAUST

Thuwal, Saudi Arabia

Apr 2020 - Present

Postdoctoral (Experienced) Researcher

- Led the development of multiple research projects from idea to publication in the field of large deformation elasticity of cracked Neo-Hookean bodies
- Developed automated software pipelines for the semi- and un-supervised generation and analysis of numerical models (mesh generation, CSM/CFD simulation, data analysis)
- Developed routines for the visualization of multi-dimensional data
- Disseminated results through the publication of journal articles
- Presented results at international conferences

UNIVERSITÉ DE LORRAINE

Nancy, France

Sep 2020 – Feb 2021

Guest Lecturer

- Established learning objectives, formulated assessment methods and designed learning activities of a Solid Mechanics course for 2nd year undergraduate students in Materials Science and Engineering delivered online
- Delivered learning activities, provided extra-curricular support, assessed the achievement of learning outcomes
- Managed remotely a team of 5 teaching assistants

LULEÅ UNIVERSITY OF TECHNOLOGY

Luleå, Sweden

Jan 2018 – Dec 2019

Early-stage Researcher

- Completed successfully an international research project between institutions in France, Sweden, and Germany
- Developed automated software pipelines for the semi- and un-supervised generation and analysis of numerical models
- Developed models of fracture for thin-ply laminates
- Co-supervised master students' research projects
- Disseminated results through the publication of journal articles
- Presented results at international conferences and seminars

UNIVERSITÉ DE LORRAINE

Nancy, France

Sep 2015 – Dec 2017

Early-stage Researcher

- Kickstarted an international research project (between institutions in France, Sweden and Germany)
- Developed automated software pipelines for the semi- and un-supervised generation and analysis of numerical models (mesh generation, CSM/Fracture Mechanics simulation, data analysis)
- Presented results at international conferences and seminars

ETH ZÜRICH

Zürich, Switzerland

Sep 2013 – Aug 2015

R&D Engineer

- Participated to the development of a coupled LBM-FEM code for staggered fluid-structure interaction
- Optimized the performance of an in-house code for multi-scale modeling of wood

IMDEA MATERIALS INSTITUTE

Madrid, Spain

Nov 2012 – Aug 2013

Research Assistant

- Organized and completed successfully an international research project between institutions in Italy and Spain
- Independently designed and conducted a series of mechanical tests to address the effect of loading rate on composites
- Developed CAE models and conducted FEM analysis of the experiments
- Implemented routines for feature detection and extraction of Fracture Mechanics parameters from video recordings of experiments

EDUCATION										
Sep 2015 – Dec 2019		PHD		POLYMERIC COMPOSITE MATERIALS						
		LULEÅ UNIVERSITY OF TECHNOLOGY				Luleå, Sweden				
Sep 2015 – Dec 2019		PHD		MATERIALS SCIENCE						
		UNIVERSITÉ DE LORRAINE				Nancy, France				
Nov 2013		PE		INDUSTRIAL ENGINEERING						
		POLITECNICO DI MILANO				Milano, Italy				
Oct 2010 – Oct 2013		MSC		SPACE ENGINEERING		GPA 110/110				
		POLITECNICO DI MILANO				Milano, Italy				
Sep 2011 – Jun 2012		MSC		MECHANICAL ENGINEERING		GPA 4/4				
		DREXEL UNIVERSITY				Philadelphia, USA				
Sep 2007 – Sep 2010		BSC		AEROSPACE ENGINEERING		GPA 110/110				
		POLITECNICO DI MILANO				Milano, Italy				
PROFESSIONAL DEVELOPMENT (SELECTED)										
May 2021		STRUCTURING MACHINE LEARNING PROJECTS								
		DEEPLARNING.AI (THROUGH COURSERA)						USA		
Apr 2021		NEURAL NETWORKS AND DEEP LEARNING								
		DEEPLARNING.AI (THROUGH COURSERA)						USA		
May – Jul 2018		FUNDAMENTALS OF BUSINESS CERTIFICATE								
		QUANTIC SCHOOL OF BUSINESS AND TECHNOLOGY (PREVIOUSLY SMARTLY)						USA		
Sep – Nov 2016		PROJECT MANAGEMENT								
		ECOLE CENTRALE LILLE						France		
Jul 2015		EFFECTIVE EXPLOITATION OF HIGH PERFORMANCE COMPUTING SYSTEMS								
		SWISS NATIONAL SUPERCOMPUTING CENTER						Switzerland		
May – Oct 2010		CNC TECHNICIAN CERTIFICATE								
		CENTRO DI FORMAZIONE SALESIANO DON BOSCO						Italy		
COMPUTER SKILLS		C++	Python	Julia	Fortran	R	Matlab	Mathematica	Maple	
Windows Batch	Unix Shell	Abaqus	Ansys	Comsol	FEniCs	OpenFOAM	Thermal Desktop	AutoCAD		
SQL	Git	Javascript	HTML	CSS	VBA	Excel	OpenMP	MPI	CUDA	OpenACC
TECHNICAL SKILLS		Manufacturing and testing of FRP				Operating CNC and precision machines				
Milling, turning, drilling, welding		CAD/CAE/CAM				Circuit design and manufacturing				
Optical and digital microscopy		Scanning electron microscopy				Strain and stress measurements				
Project management		Funding and budgeting				Technical writing and communication				
LANGUAGES		Italian		Native speaker		English		Highly proficient		
		French		Highly proficient		Spanish		Highly proficient		
		German		Working knowledge		Swedish		Working knowledge		