



Luca Di Stasio

Researcher & Engineer

- D-CPR Certified (FR, SE)
- Driver License Cat. B (IT)
- Italian & EU citizen
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Computer Skills

- Operating Systems
 - Linux (Ubuntu, OpenSUSE, CentOS)
 - Windows (>95), Mac OS X (>10.6)
- Languages
 - C, C++, Python, Perl, Java, Fortran
 - VBA, Javascript, HTML(5), CSS
 - Bash, Windows Batch Scripting
- High Performance Computing
 - OpenMP, MPI, CUDA, OpenACC
- Scientific Computing & Statistics
 - Numpy, Scipy, R, Stata
 - Matlab, Mathematica, Octave, Maple
 - Excel, G-Sheets, LibreOffice Calc
- CAD, CAM, CAE
 - Autocad, Solid Edge, G-code
 - Abaqus, Ansys, Comsol Multiphysics
 - CalculiX, FEniCS, Code_Aster
 - OpenFOAM, Thermal Desktop
- Web Development
 - AJAX, JQuery, Bootstrap, Angular
 - React, D3, Node.js, Npm
- Databases
 - SQL, MongoDB
- Versioning
 - Git, Github
- Writing & Reporting
 - Latex, Tikz, Beamer, Word, Powerpoint

Work Experience

Research & Development

- 2018-2019 **Early stage researcher** Luleå tekniska universitet (Luleå, Sweden)
Polymeric Composite Materials Group, TVM
Project(s): Mechanics of extreme thin composite layers for aerospace applications, Effect of aging on transverse cracking in GFRPC, Temperature and loading rate effect on transverse cracking in GFRPC
Working language(s): Swedish, English
- 2015-2017 **Early stage researcher** Université de Lorraine (Nancy, France)
Mechanics of Materials Group, SI2M, IJL
Project(s): Mechanics of extreme thin composite layers for aerospace applications
Working language(s): French, English
- 2013-2015 **Early stage researcher** ETH Zürich (Zürich, Switzerland)
Computational Physics for Engineering Materials Group, D-BAUG
Projects: Fluid-structure interaction on deformable surfaces, Multi-scale modeling of wood
Working language(s): German, English
- 2012-2013 **Research assistant** IMDEA Materials Institute (Madrid, Spain)
Structural Composites Group
Project(s): Loading rate effects on interlaminar fracture toughness in advanced CFRP.
Working language(s): Spanish, English
- 2012 **Research assistant** Drexel University (Philadelphia, USA)
Mesoscale Materials Laboratory & BioMechanics Laboratory
Project(s): Design of nano-resonators for environmental electromagnetic field detection, Talus morphology and its relationship to the kinematics of the ankle joint.
Working language(s): English

Teaching & Supervision

- 2018-2019 **University Teaching Assistant** Luleå tekniska universitet (Luleå, Sweden)
Subjects: Elasticity, Rheological models, Fracture mechanics, Experimental methods, Mechanics of Composite Materials, Laminate Analysis, Finite Element Method.
Working language(s): English
- 2016-2017 **University Teaching Assistant** Université de Lorraine (Nancy, France)
Subjects: Mechanics of materials, Elasticity, Rheological models, Fracture mechanics, Experimental methods, Mechanics of Composite Materials, Finite Element Method
Working language(s): French
- 2014-2015 **Tutor** The Learning Center Zürich (Zürich, Switzerland)
Subjects: Mathematics, Physics, Statistics, Econometrics, Java programming
Working language(s): German, English
- 2011 **Tutor** Politecnico di Milano (Milano, Italy)
Subjects: Calculus
Working language(s): Italian
- 2009-2011 **Tutor** Scientific High School Istituto Sacro Cuore (Milano, Italy)
Subjects: Mathematics, Physics, Biology, Italian Language and Literature, Latin Language and Literature, History
Working language(s): Italian

Institutional and Administrative Activities

- 2019 **CompTest 2019 organising committee** (Luleå, Sweden)
9th International Conference on Composite testing and model identification
Design and creation of interactive book of abstracts and proceedings website
Working language(s): English

Volunteer Work

- currently **Instructor** The Carpentries (CA, USA)
Conducting workshops to teach foundational coding and data science skills (Unix Shell, Git, Python, R) to researchers
Working language(s): English

Memberships

- Since 2014 Ordine degli Ingegneri della Provincia di Milano (Society of Licensed Engineers of Milan)

Technical Skills

-  **Mechanical & Electrical Engineering**
 - Creation of Drawings & Specifications
 - Circuit Design & Assembly
 - Milling, Turning, Drilling, Welding
 - Operating CNC & Precision Machines
-  **Composites Science & Technology**
 - Hand layup, Resin Molding & Casting
 - Specimen Cutting & Polishing
 - UTM Testing, Strain Measurements
 - Optical & Digital Microscopy, SEM
-  **Project Management**
 - Goals & Specifications Formulation
 - Planning, Scheduling & Supervision
 - Funding & Budgeting
-  **Technical Writing & Communication**
 - Technical Reports, Scientific Articles
 - Seminar & Conference Presentations
 - Meeting, Video-Conferencing

Languages

-  **Italian (mother tongue)**
 - Speaking ● ● ● ● ●
 - Writing ● ● ● ● ●
 - Reading ● ● ● ● ●
-  **English (fluent)**
 - Speaking ● ● ● ● ●
 - Writing ● ● ● ● ●
 - Reading ● ● ● ● ●
-  **French (fluent)**
 - Speaking ● ● ● ● ●
 - Writing ● ● ● ● ●
 - Reading ● ● ● ● ●
-  **Spanish (fluent)**
 - Speaking ● ● ● ● ●
 - Writing ● ● ● ● ●
 - Reading ● ● ● ● ●
-  **German (satisfactory)**
 - Speaking ● ● ● ● ●
 - Writing ● ● ● ● ●
 - Reading ● ● ● ● ●
-  **Swedish (rudimentary)**
 - Speaking ● ● ● ● ●
 - Writing ● ● ● ● ●
 - Reading ● ● ● ● ●
-  **Russian (rudimentary)**
 - Speaking ● ● ● ● ●
 - Writing ● ● ● ● ●
 - Reading ● ● ● ● ●

Education

Higher Education

- 2015 - **Joint European Doctor of Philosophy Degree in Advanced Materials Science and Engineering (DocMASE)**
Luleå tekniska universitet (Luleå, Sweden) and Université de Lorraine (Nancy, France)
PhD in Polymeric Composite Materials (2019), Luleå tekniska universitet
PhD in Materials Science (2019), Université de Lorraine
Working language(s): English, French, Swedish
- 2013 **Professional License, Industrial Engineering**
Politecnico di Milano (Milano, Italy)
Working language(s): Italian
- 2010 - **Double Master of Science Degree EAGLES (Engineers as Global Leaders for Energy Sustainability)**
Politecnico di Milano (Milano, Italy), Drexel University (Philadelphia, USA) and Universidad Politécnica de Madrid (Madrid, Spain)
MSc in Space Engineering, 110/110 (2013), Politecnico di Milano
MSc in Mechanical Engineering, 4/4 (2012), Drexel University
Working language(s): Italian, English, Spanish
- 2007 - **Bachelor of Science in Aerospace Engineering, 110/110**
Politecnico di Milano (Milano, Italy)
Working language(s): Italian
- 2002 - **Scientific High School Diploma, 100/100 cum Laude**
Scientific High School Istituto Sacro Cuore (Milano, Italy)
Working language(s): Italian
- 1997 - **Cello Studies**
2007 Municipal School of Music (Cernusco s/N, Italy)
Working language(s): Italian

Selected Courses & Seminars

- 2018 - **Qualifying Course for University Teachers**
2019 Luleå tekniska universitet (Luleå, Sweden)
In-Class Course and Verified Certificate of Completion
Working language(s): English
- 2016 **Project Management MOOC - Classic Course**
Centrale Lille and Unow (Lille, France)
Online MOOC and Certificate of Completion
Working language(s): French
- 2015 **Corporate Social Responsibility (CSR) and Value Creation**
Audencia Nantes Business School (Nantes, France)
Online MOOC and Verified Certificate of Completion
Working language(s): English
- 2015 **2015 Summer School on Effective High Performance Computing**
CSCS and Università della Svizzera Italiana (Lugano, Switzerland)
In-Class Course, Hands-on Training and Certificate of Completion
Working language(s): English

Vocational Training

- 2009 **CNC Technician**
Centro di Formazione Professionale Salesiano Don Bosco (Milano, Italy)
In-Class Course, Hands-on Training and Certificate of Competence
Working language(s): Italian

Selected Publications

- 2019 Growth of interface cracks on consecutive fibers: on the same or on the opposite sides?
Proceedings of the 12th International Conference on Composite Science and Technology - Sorrento, Italy - May 8-10th, 2019
- 2019 Energy release rate of the fiber/matrix interface crack in UD composites under transverse loading: debond-debond and debond-free boundary interactions
Theoretical and Applied Fracture Mechanics, doi: 10.1016/j.tafmec.2019.102251