



Luca Di Stasio

Early Stage Researcher

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

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

- currently **Early stage researcher** Luleå University of Technology, Luleå, Sweden
Polymeric Composites Group, TVM.
Projects: 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 - **Early stage researcher** Université de Lorraine, Nancy, France
2017 Mechanics of Materials Group, SI2M, IJL, EEIGM.
Projects: Mechanics of extreme thin composite layers for aerospace applications.
Working language(s): French, English.
- 2013 - **Early stage researcher** ETH Zürich, Zürich, Switzerland
2015 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 - **Research assistant** IMDEA Materials Institute, Madrid, Spain
2013 Structural Composites Group.
Projects: 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.
Projects: 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

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

Institutional and Administrative Activities

- 2008 - **Student Representative** Politecnico di Milano, Milano, Italy
2011 Student representative in the board of the Department of Aerospace Engineering and in the board of the School of Industrial Engineering at Politecnico di Milano.
Working language(s): Italian.

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

- 2013 Professional License, Industrial Engineering**
Politecnico di Milano, Milano, Italy
Working language(s): Italian.
- 2010 - 2013 Master of Science, Space Engineering, 110/110**
Politecnico di Milano, Milano, Italy
Double M.Sc. degree project EAGLES (Politecnico di Milano, Milano, Italy - Drexel University, Philadelphia, USA - Universidad Politécnica de Madrid, Madrid, Spain)
Working language(s): Italian, English, Spanish.
- 2011 - 2012 Master of Science, Mechanical Engineering, 4/4**
Drexel University, Philadelphia, USA
Double M.Sc. degree project EAGLES (Politecnico di Milano, Milano, Italy - Drexel University, Philadelphia, USA - Universidad Politécnica de Madrid, Madrid, Spain)
Working language(s): English.
- 2007 - 2010 Bachelor of Science, Aerospace Engineering, 110/110**
Politecnico di Milano, Milano, Italy
Working language(s): Italian.
- 2002 - 2007 Scientific High School Diploma, 100/100 cum Laude**
Scientific High School Istituto Sacro Cuore, Milano, Italy
Working language(s): Italian.
- 1997 - 2007 Cello Studies**
Municipal School of Music, Cernusco s/N, Italy
Working language(s): Italian.

Selected Courses & Seminars

- 2018 - 2019 Qualifying Course for University Teachers**
Luleå University of Technology, 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
- 2018** Effect of boundary conditions on microdamage initiation in thin ply composite laminates
Proceedings of the ECCM18 - 18th European Conference on Composite Materials - Athens, Greece - June 24-28th, 2018
- 2013** Experimental, Analytical and Numerical Investigation of Loading Rate Effects on Mode I, Mode II and Mixed Mode I-II Delamination in Advanced CFRP
Master Thesis, Master of Science in Space Engineering. Politecnico di Milano, Milano, Italy.