Luca Di Stasio

Early Stage Researcher

- D-CPR Certified (FR, SE)
- Driver License Cat. B (IT)
- Italian & EU citizen
- Stormvägen 299
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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 - 2017	**Early stage researcher**	Université de Lorraine, Nancy, France

Mechanics of Materials Group, SI2M, IJL, EEIGM.
Projects: 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.
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 - 2017	**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

2008 - 2011	**Student Representative**	Politecnico di Milano, Milano, Italy

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 languages(s): Italian.

2002 - 2007 — **Scientific High School Diploma, *100/100 cum Laude***
Scientific High School Istituto Sacro Cuore, Milano, Italy
Working languages(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 Universitá 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 — Energy release rate of the fiber/matrix interface crack growth in $[0^\circ_{m \cdot 2l}, 90^\circ_l]_S$ laminates under transverse loading: effect of $0^\circ/90^\circ$ interface
In Preparation

2019 — Energy release rate of the fiber/matrix interface crack in UD composites under transverse loading: debond-debond and debond-free boundary interactions
Submitted to *Theoretical and Applied Fracture Mechanics*

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, 24-28th June 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.

April 4, 2019