



# Luca Di Stasio

## Early Stage Researcher

- D-CPR Certified (FR, SE)
- Driver License Cat. B (IT)
- Italian & EU citizen
- Stormvägen 299  
SE-97643 Luleå, Sweden
- +46 76 453 21 60
- luca.distasio@gmail.com
- 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 - **Master of Science, Space Engineering, 110/110**  
2013 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 - **Master of Science, Mechanical Engineering, 4/4**  
2012 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 - **Bachelor of Science, Aerospace Engineering, 110/110**  
2010 Politecnico di Milano, Milano, Italy  
*Working language(s):* Italian.
- 2002 - **Scientific High School Diploma, 100/100 cum Laude**  
2007 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 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 12<sup>th</sup> *International Conference on Composite Science and Technology - Sorrento, Italy - May 8-10<sup>th</sup>, 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 - 18<sup>th</sup> *European Conference on Composite Materials - Athens, Greece - June 24-28<sup>th</sup>, 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.