



Luca Di Stasio

Chercheur & Ingénieur

- Qualifié PSC1 (FR, SE)
- Permis de conduire Cat. B (IT)
- Citoyen italien & européen
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Compétences informatiques

- </> Système d'exploitation
Linux (Ubuntu, OpenSUSE, CentOS)
Windows (>95), Mac OS X (>10.6)
- </> Langages
C, C++, Python, Fortran, Julia, VBA
Perl, Java, Javascript, HTML(5), CSS
Bash, Windows Batch Scripting
- </> Calcul Haute Performance
OpenMP, MPI, CUDA, OpenACC
- </> Calcul scientifique & statistique
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
- </> Développement web
AJAX, JQuery, Bootstrap, Angular
React, D3, Node.js, Npm
- </> Bases de données
SQL, MongoDB
- </> Gestion de versions
Git, Github
- </> Rédaction
Latex, Tikz, Beamer, Word, Powerpoint

Expérience professionnelle

Activités de recherche

- 2020- **Chercheur postdoctoral** KAUST (Thuwal, Arabie saoudite)
Physical Science and Engineering Division
Projet(s): Mécanique de la rupture dans matériaux hyperélastiques avec et sans renfort en fibre
Langue(s) de travail: anglais
- 2018- **Jeune chercheur** Luleå tekniska universitet (Luleå, Suède)
2019 Polymeric Composite Materials Group, TVM
Projet(s): Mécanique des couches composites extrêmement fines pour les applications aérospatiales, Effet du vieillissement sur la fissuration transversale dans les GFRPC, Effet de la température et du taux de charge sur la fissuration transversale dans les GFRPC
Langue(s) de travail: suédois, anglais
- 2015 - **Jeune chercheur** Université de Lorraine (Nancy, France)
2017 Equipe Physique, Mécanique et Plasticité, SI2M, IJL
Projet(s): Mécanique des couches composites extrêmement fines pour les applications aérospatiales
Langue(s) de travail: français, anglais
- 2013 - **Jeune chercheur** ETH Zürich (Zürich, Suisse)
2015 Computational Physics for Engineering Materials Group, D-BAUG
Projet(s): Interaction fluide-structure sur surfaces déformables, Modélisation multi-échelle du bois
Langue(s) de travail: allemand, anglais
- 2012 - **Assistant de recherche** IMDEA Materials Institute (Madrid, Espagne)
2013 Structural Composites Group
Projet(s): Effets de la vitesse de chargement sur le taux de restitution d'énergie dans CFRP avancées
Langue(s) de travail: espagnol, anglais
- 2012 **Assistant de recherche** Drexel University (Philadelphia, États-Unis)
Mesoscale Materials Laboratory & BioMechanics Laboratory
Projet(s): Conception de nanorésonateurs pour la détection des champs électromagnétiques environnementaux, morphologie du talus et sa relation avec la cinématique de l'articulation de la cheville
Langue(s) de travail: anglais

Activités d'enseignement

- 2020 - **Professeur (vacataire)** Université de Lorraine (Nancy, France)
2021 *Sujets*: Mécanique du solide déformable
Langue(s) de travail: français
- 2018- **Chargé d'enseignement** Luleå tekniska universitet (Luleå, Suède)
2019 *Sujets*: Élasticité, modèles rhéologiques, mécanique de la rupture, méthodes expérimentales, mécanique des matériaux composites, analyse des stratifiés, méthode des éléments finis
Langue(s) de travail: anglais
- 2016 - **Chargé d'enseignement** Université de Lorraine (Nancy, France)
2017 *Sujets*: Mécanique des matériaux, élasticité, modèles rhéologiques, mécanique de la rupture, méthodes expérimentales, mécanique des matériaux composites, méthode des éléments finis
Langue(s) de travail: français
- 2014 - **Professeur de soutien scolaire** The Learning Center Zürich (Zürich, Suisse)
2015 *Sujets*: Mathématiques, physique, statistiques, économétrie, programmation Java
Langue(s) de travail: allemand, anglais
- 2011 **Professeur de soutien scolaire** Politecnico di Milano (Milano, Italie)
Sujets: Calcul différentiel et intégral
Langue(s) de travail: italien
- 2009 - **Professeur de soutien scolaire** Lycée Istituto Sacro Cuore (Milano, Italie)
2011 *Sujets*: Mathématiques, physique, biologie, langue et littérature italiennes, langue et littérature latines, histoire
Langue(s) de travail: italien





Institutional and Administrative Activities

- 2019 **CompTest 2019 organising committee** (Luleå, Suède)
9th International Conference on Composite testing and model identification
Design and creation of interactive book of abstracts, creation and design of
conference proceedings website
Langue(s) de travail: anglais
- 2008 - **Student Representative** Politecnico di Milano (Milano, Italie)
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
Langue(s) de travail: italien

Volunteer Work

- 2017- **Instructor** The Carpentries (CA, États-Unis)
Conducting workshops to teach foundational coding and data science skills (Unix
Shell, Git, Python, R) to researchers
Langue(s) de travail: anglais

Compétences techniques —

-  **Génie mécanique & électronique**
 - Dessins techniques et spécifications
 - Projet et montage des circuits
 - Fraisage, tournage, perçage, soudage
 - Machines CN & de précision
-  **Technologie des composites**
 - Moulage au contact, coulage
 - Découpe et polissage d'éprouvettes
 - Machine d'essais universelle
 - Mesures de déformation
 - Microscopie optique et numérique
 - SEM
-  **Gestion de projet**
 - Objectifs et spécifications
 - Planification et suivi
 - Financement & gestion budgétaire
-  **Communication technique**
 - Rapports techniques
 - Publications scientifiques
 - Exposés dans congrès et séminaires
 - Enseignement en présentiel
 - Enseignement à distance
 - Visioconférence

Formation

Formation académique

- 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
Langue(s) de travail: 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
Langue(s) de travail: Italian, English, Spanish
- 2007 - **Bachelor of Science in Aerospace Engineering, 110/110**
2010 Politecnico di Milano (Milano, Italy)
Langue(s) de travail: Italian
- 2002 - **Scientific High School Diploma, 100/100 cum Laude**
2007 Scientific High School Istituto Sacro Cuore (Milano, Italy)
Working languages(s): Italian
- 1997 - **Cello Studies**
2007 Municipal School of Music (Cernusco s/N, Italy)
Langue(s) de travail: Italian

Selected Courses & Seminars

- 2018 - **Qualifying Course for University Teachers**
2019 Luleå tekniska universitet (Luleå, Suède)
In-Class Course and Verified Certificate of Completion
Langue(s) de travail: English
- 2017 **Software Carpentry Instructor Training Program**
The Carpentries (California, USA)
Remote Interactive Course and Certificate of Completion
Langue(s) de travail: English
- 2016 **Project Management MOOC - Classic Course**
Centrale Lille and Unow (Lille, France)
Online MOOC and Certificate of Completion
Langue(s) de travail: French
- 2015 **Corporate Social Responsibility (CSR) and Value Creation**
Audencia Nantes Business School (Nantes, France)
Online MOOC and Verified Certificate of Completion
Langue(s) de travail: 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
Langue(s) de travail: 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
Langue(s) de travail: Italian

Memberships

- Since 2014 Ordine degli Ingegneri della Provincia di Milano (Society of Licensed Engineers of Milan)
- Since 2017 The Carpentries

Langues

 Italien (langue maternelle)	
Parler	● ● ● ● ●
Écrire	● ● ● ● ●
Lire	● ● ● ● ●
 Anglais (courant)	
Parler	● ● ● ● ●
Écrire	● ● ● ● ●
Lire	● ● ● ● ●
 Français (courant)	
Parler	● ● ● ● ●
Écrire	● ● ● ● ●
Lire	● ● ● ● ●
 Espagnol (courant)	
Parler	● ● ● ● ●
Écrire	● ● ● ● ●
Lire	● ● ● ● ●
 Allemand (satisfaisant)	
Parler	● ● ● ● ●
Écrire	● ● ● ● ●
Lire	● ● ● ● ●
 Suédois (scolaire)	
Parler	● ● ● ● ●
Écrire	● ● ● ● ●
Lire	● ● ● ● ●
 Russe (notions)	
Parler	● ● ● ● ●
Écrire	● ● ● ● ●
Lire	● ● ● ● ●

Honors & Awards

2019	Wallenberg Jubileumsanslaget Travel Grant Knut and Alice Wallenberg Foundation Travel expenses for the participation to the <i>12th International Conference on Composite Science and Technology</i>
2015 - 2018	Erasmus Mundus Fellowship European Commission Salary and travel expenses for the participation to the <i>Joint European Doctoral Programme in Advanced Materials Science and Engineering (DocMASE)</i>
2015	Academic Excellence Award BCC (Banca di Credito Cooperativo) di Cernusco s/N (now BCC di Milano) (Milano, Italy) Award for excellence in graduate studies at Politecnico di Milano (Milano, Italy)
2013	PEGASUS award PEGASUS - The European Network of Excellence in Aerospace Engineering Education Statement of recognition of special achievements in European cooperation through working abroad for academic research or industrial development projects
2012 - 2013	Erasmus Fellowship European Commission Salary and travel expenses to conduct a research project at IMDEA Materials Institute (Madrid, Spain), as part of the <i>Double Master Degree Program EAGLES (Engineers as Global Leaders for Energy Sustainability)</i>
2011 - 2012	EU-US Atlantis Program Fellowship European Commission and U.S. Department of Education Full tuition, salary and travel expenses to conduct graduate studies at Drexel University (Philadelphia, USA), as part of the <i>Double Master Degree Program EAGLES (Engineers as Global Leaders for Energy Sustainability)</i>
2012	Academic Excellence Award BCC (Banca di Credito Cooperativo) di Cernusco s/N (now BCC di Milano) (Milano, Italy) Award for excellence in undergraduate studies at Politecnico di Milano (Milano, Italy)
2007 - 2010	Merit-based tuition fees exemption Politecnico di Milano (Milano, Italy) Merit-based partial exemption from tuition fees to conduct undergraduate studies at Politecnico di Milano (Milano, Italy)
2007	Academic Excellence Award BCC (Banca di Credito Cooperativo) di Cernusco s/N (now BCC di Milano) (Milano, Italy) Award for excellence in high school studies at Scientific High School Istituto Sacro Cuore (Milano, Italy)
2007	Academic Excellence Award Ministero dell'Istruzione, dell'Università e della Ricerca (Italian government) Award for excellence in high school studies at Scientific High School Istituto Sacro Cuore (Milano, Italy)

Liste des publications

2019	Finite Element solution of the fiber/matrix interface crack problem: convergence properties and mode mixity of the Virtual Crack Closure Technique <i>Finite Elements in Analysis and Design</i> , doi: 10.1016/j.finela.2019.103332
2019	Growth of interface cracks on consecutive fibers: on the same or on the opposite sides? Proceedings of the <i>12th International Conference on Composite Science and Technology - Sorrento, Italy - May 8-10th, 2019</i>
2019	Energy release rate of the fiber/matrix interface crack in UD composites under transverse loading: debond-debond and debond-free boundary interactions <i>Theoretical and Applied Fracture Mechanics</i> , doi: 10.1016/j.tafmec.2019.102251
2018	Effect of boundary conditions on microdamage initiation in thin ply composite laminates Proceedings of the <i>ECCM18 - 18th European Conference on Composite Materials - Athens, Greece - June 24-28th, 2018</i>
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.