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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Luca Di Stasio** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **R&D Professional** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Discovery Boulevard, G-3900, KAUST, Thuwal, Saudi Arabia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **D-CPR Certified** | | | | **Driving License B (IT)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **(+966) 53 419 70 84** | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | **luca.distasio@gmail.com** | | | | | | | | | |
| **Profile** | | | | Scientific researcher and software simulation engineer, I’m a creative problem-solver and challenge-driven. Experienced in managing R&D projects from conception to exploitation, both as leader and collaborator. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Employment History** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Kaust** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Thuwal, Saudi Arabia | | | | | | | | | |
| Apr 2020 - Present | | | | **Postdoctoral Researcher** *(with Prof. Brian Moran)* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Led the development of multiple research projects from idea to publication in the field of large deformation elasticity of cracked Neo-Hookean bodies * Developed automated software pipelines for the semi- and un-supervised generation and analysis of numerical models (mesh generation, CSM/CFD simulation, data analysis) * Developed routines for the visualization of multi-dimensional data * Disseminated results through the publication of journal articles * Presented results at international conferences | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Université de Lorraine** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Nancy, France | | | | | | | | | |
| Sep 2020 – Feb 2021 | | | | **Guest Lecturer** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Established learning objectives, formulated assessment methods and designed learning activities of a Solid Mechanics course for 2nd year undergraduate students in Materials Science and Engineering delivered online * Delivered learning activities, provided extra-curricular support, assessed and graded the achievement of learning outcomes * Managed remotely a team of 5 teaching assistants | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Luleå University of Technology** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Luleå, Sweden | | | | | | | | | |
| Jan 2018 – Dec 2019 | | | | **Early-stage Researcher** *(with Prof. Janis Varna)* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Completed successfully an international research project between institutions in France, Sweden, and Germany with multiple stakeholders and overlapping requirements * Developed automated software pipelines for the semi- and un-supervised generation and analysis of numerical models (mesh generation, CSM/Fracture Mechanics simulation, data analysis) * Co-supervised master students’ research projects * Disseminated results through the publication of journal articles * Presented results at international conferences and seminars | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan 2018 – Dec 2019 | | | | **University Teaching Assistant** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Delivered learning activities in the field of Experimental Composite Mechanics to 1st and 2nd year international master students in Materials Science and Engineering | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Université de Lorraine** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Nancy, France | | | | | | | | | |
| Sep 2016 – Dec 2017 | | | | **University Teaching Assistant** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Delivered learning activities in the field of Experimental Mechanics, Mechanics of Materials, and Computational Mechanics of Composite Materials to 2nd and 3rd year undergraduate and 1st year graduate students in Materials Science and Engineering | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep 2015 – Dec 2017 | | | | **Early-stage Researcher** *(with Prof. Zoubir Ayadi)* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Kickstarted an international research project (between institutions in France, Sweden and Germany) with multiple stakeholders and overlapping requirements * Developed automated software pipelines for the semi- and un-supervised generation and analysis of numerical models (mesh generation, CSM/Fracture Mechanics simulation, data analysis) * Presented results at international conferences and seminars | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **The Learning Center Zürich** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Zürich, Switzerland | | | | | | | | | |
| Dec 2014 – Aug 2015 | | | | **Personal Tutor** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Designed and delivered learning activities for high school and undergraduate students in STEM subjects | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **ETH Zürich** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Zürich, Switzerland | | | | | | | | | |
| Sep 2013 – Aug 2015 | | | | **Early-stage Researcher** *(with Prof. Hans Herrmann)* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Participated to the development of a coupled LBM-FEM code for staggered fluid-structure interaction * Optimized the performance of an in-house code for multi-scale modeling of wood | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **IMDEA Materials Institute** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Madrid, Spain | | | | | | | | | |
| Nov 2012 – Aug 2013 | | | | **Research Assistant** *(with Dr. Claudio Lopes)* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Organized and completed successfully an international research project between institutions in Italy and Spain * Independently designed and conducted a series of mechanical tests to address the effect of loading rate on composites * Developed CAE models and conducted FEM analysis of the experiments * Implemented routines for feature detection and extraction of Fracture Mechanics parameters from video recordings of experiments | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Drexel University** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Philadelphia, USA | | | | | | | | | |
| Jan 2012 – Jun 2012 | | | | **Research Assistant** *(with Prof. Sorin Siegler and Prof. Jonathan Spanier)* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Designed and performed numerical simulations of a nanoscale coupled piezoelectric/magnetostrictive layered beam for the detection of environmental magnetic fields * Identified and explained an incongruence in the literature on talus morphology that validated the group’s data and results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Politecnico di Milano** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Milano, Italy | | | | | | | | | |
| Jan 2011 – Jun 2011 | | | | **Personal Tutor** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Designed and delivered learning activities for an undergraduate student in Aerospace Engineering with special needs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Istituto Sacro Cuore** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Milano, Italy | | | | | | | | | |
| Oct 2009 – Jun 2011 | | | | **Learning Support Teacher** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | * Designed and delivered learning activities for high school students in STEM and Humanities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Education** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep 2015 – Dec 2019 | | | | **PhD** | | | | **Polymeric Composite Materials** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Luleå University of Technology | | | | | | | | | | | | | | | | | | | | | | | | | | Luleå, Sweden | | | | | | | | | |
| Sep 2015 – Dec 2019 | | | | **PhD** | | | | **Materials Science** | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | |
|  | | | | Université de Lorraine | | | | | | | | | | | | | | | | | | | | | | | | | | Nancy, France | | | | | | | | | |
| Nov 2013 | | | | **PE** | | | | **Industrial Engineering** | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | |
|  | | | | Politecnico di Milano | | | | | | | | | | | | | | | | | | | | | | | | | | Milano, Italy | | | | | | | | | |
| Oct 2010 – Oct 2013 | | | | **MSc** | | | | **Space Engineering** | | | | | | | | | | | | | | | | | | | | | | **GPA 110/110** | | | | | | | | | |
|  | | | | Politecnico di Milano | | | | | | | | | | | | | | | | | | | | | | | | | | Milano, Italy | | | | | | | | | |
| Sep 2011 – Jun 2012 | | | | **MSc** | | | | **Mechanical Engineering** | | | | | | | | | | | | | | | | | | | | | | **GPA 4/4** | | | | | | | | | |
|  | | | | Drexel University | | | | | | | | | | | | | | | | | | | | | | | | | | Philadelphia, USA | | | | | | | | | |
| Sep 2007 – Sep 2010 | | | | **BSc** | | | | **Aerospace Engineering** | | | | | | | | | | | | | | | | | | | | | | **GPA 110/110** | | | | | | | | | |
|  | | | | Politecnico di Milano | | | | | | | | | | | | | | | | | | | | | | | | | | Milano, Italy | | | | | | | | | |
| Sep 2002 – Jun 2007 | | | | **Dip** | | | | **Scientific High School** | | | | | | | | | | | | | | | | | | | | | | **GPA 100/100 cum Laude** | | | | | | | | | |
|  | | | | Istituto Sacro Cuore | | | | | | | | | | | | | | | | | | | | | | | | | | Milano, Italy | | | | | | | | | |
| Sep 1997 – Jun 2007 | | | |  | | | | **Cello Studies** | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | |
|  | | | | Municipal School of Music | | | | | | | | | | | | | | | | | | | | | | | | | | Cernusco s/N, Italy | | | | | | | | | |
| **Professional Development (Selected)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct – Dec 2021 | | | | **Higher Education Teaching Certificate** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Harvard University (through HarvardX) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | USA | | |
| May 2021 | | | | **Structuring Machine Learning Projects** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | DeepLearning.AI (through Coursera) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | USA | |
| Apr 2021 | | | | **Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | DeepLearning.AI (through Coursera) | | | | | | | | | | | | | | | | USA | | | | | | | | | | | | | | | | | | | |
| Apr 2021 | | | | **Neural Networks and Deep Learning** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | DeepLearning.AI (through Coursera) | | | | | | | | | | | | | | | | USA | | | | | | | | | | | | | | | | | | | |
| Mar 2021 | | | | **French National Qualification as Assistant/Associate Professor** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Ministère de l’Enseignement Supérieur et de la Recherche | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | France | | | | | |
| Sep – Nov 2020 | | | | **Carpentries Trainer Training** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | The Carpentries | | | | | | | | | | | | | | | | | | | | | | | | | USA | | | | | | | | | | |
| Jun – Jul 2020 | | | | **Carpentries Maintainer Training** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | The Carpentries | | | | | | | | | | | | | | | | | | | | | | | | | USA | | | | | | | | | | |
| Sep 2018 – Jan 2019 | | | | **Swedish Qualifying Course for University Teachers** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Luleå University of Technology | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Sweden | | |
| May – Jul 2018 | | | | **Fundamentals of Business Certificate** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Quantic School of Business and Technology (previously Smartly) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | USA | | |
| Mar 2018 | | | | **Research Funding** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Luleå University of Technology | | | | | | | | | | | | | | | | Sweden | | | | | | | | | | | | | | | | | | | |
| Jun – Sep 2017 | | | | **Carpentries Instructor Training** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | The Carpentries | | | | | | | | | | | | | | | | USA | | | | | | | | | | | | | | | | | | | |
| Nov – Dec 2016 | | | | **CSR and Value Creation** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Audencia Business School | | | | | | | | | | | | | | | | France | | | | | | | | | | | | | | | | | | | |
| Sep – Nov 2016 | | | | **Project Management** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Ecole Centrale Lille | | | | | | | | | | | | | | | | France | | | | | | | | | | | | | | | | | | | |
| Jul 2015 | | | | **Effective Exploitation of High Performance Computing Systems** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Swiss National Supercomputing Center | | | | | | | | | | | | | | | | | | | | | | Switzerland | | | | | | | | | | | | | |
| Jul 2015 | | | | **CNC Technician Certificate** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Centro di Formazione Salesiano Don Bosco | | | | | | | | | | | | | | | | | | | | | | | Italy | | | | | | | | | | | | |
| **Computer Skills** | | | | C++ | | | Python | | | | | | Julia | | | | Fortran | | R | Matlab | | | | | | | | | Mathematica | | | | | | Maple | | | | |
| Windows Batch | | | Unix Shell | | | Abaqus | | | | | Ansys | | | | | Comsol | | | FEniCs | | | | | | OpenFOAM | | | | | | | | Thermal Desktop | | | | | | |
| SQL | Git | | Javascript | | | HTML | | | | | CSS | | | | VBA | | | Excel | | OpenMP | | | | | | | | MPI | | | CUDA | | | | | OpenACC | | |
| **Technical Skills** | | | | | Manufacturing and testing of FRP | | | | | | | | | | | | | | | | Operating CNC and precision machines | | | | | | | | | | | | | | | | | | |
| Milling, turning, drilling, welding | | | | | | | | | | CAD/CAE/CAM | | | | | | | | | | | | | Circuit design and manufacturing | | | | | | | | | | | | | | | | |
| Optical and digital microscopy | | | | | | | | | Scanning electron microscopy | | | | | | | | | | | | | | Strain and stress measurements | | | | | | | | | | | | | | | | |
| Project management | | | | | | | | Funding and budgeting | | | | | | | | | | | | | | Technical writing and communication | | | | | | | | | | | | | | | | | |
| **Languages** | | | | **Italian** | | | | | | | | Native speaker | | | | | | | | | | | | **English** | | | | | | | | Highly proficient | | | | | | | |
|  | | | | **French** | | | | | | | | Highly proficient | | | | | | | | | | | | **Spanish** | | | | | | | | Highly proficient | | | | | | | |
|  | | | | **German** | | | | | | | | Working knowledge | | | | | | | | | | | | **Swedish** | | | | | | | | Working knowledge | | | | | | | |
| **Projects** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * Formulation of cohesive zone models and cohesive elements for large deformations at the crack tip of Neo-Hookean thin sheets under conditions of plane stress   *In collaboration with:* Prof. Brian Moran, Dr. Yin Liu   * Neo-Hookean sphere impacting on a water droplet at rest on rigid/deformable, hydrophobic/hydrophilic surfaces: modeling the mechanics of solid and fluid phases and their interaction   *In collaboration with:* Prof. Brian Moran, Prof. Tadd Truscott   * Design of soft polymer balls with internal structure for asymmetric impact trajectories   *In collaboration with:* Prof. Brian Moran   * Asymptotic characterization of the elastic fields along the front of a crack in a 3D Neo-Hookean body under large deformations   *In collaboration with:* Prof. Brian Moran | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Completed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * Micromechanics of damage in thin- and ultra thin-plies of glass- and carbon-fiber reinforced polymer composites for aerospace applications   *In collaboration with:* Prof. Janis Varna, Prof. Zoubir Ayadi   * Characterization of the fiber-matrix debonding process from the analysis of post-mortem optical micrographs   *In collaboration with:* Mr. Florian Feyne, Prof. Janis Varna   * Experimental and numerical analysis of the effect of temperature and curing history on the viscoelastic behavior of epoxy resin   *In collaboration with:* Mr. Pietro Cuccarollo, Dr. Liva Pupure, Prof. Janis Varna, Prof. Marino Quaresimin   * Effect of aging on transverse cracking in glass fiber reinforced polymer composites   *In collaboration with:* Prof. Janis Varna   * Effect of temperature and loading rate on transverse cracking in glass fiber reinforced polymer composites   *In collaboration with:* Prof. Janis Varna   * Coupling a boundary-conforming Lattice Boltzmann Method (LBM) with a subdivision-based Finite Element Method (FEM) for linear elastic thin shells through advanced mesh generation and finite differentiation   *In collaboration with:* Dr. Miller Mendoza, Dr. Falk Wittel, Prof. Hans Herrmann   * Performance optimization of a Matlab-based code for multiscale modeling of wood   *In collaboration with:* Dr. Falk Wittel   * Effect of loading rate on interlaminar fracture toughness in advanced carbon fiber reinforced polymer composites   *In collaboration with:* Dr. Claudio Lopes   * Automated crack detection and extraction of fracture parameters from video recordings of interlaminar fracture toughness tests (DCB, ENF, MMB)   *In collaboration with:* Dr. Claudio Lopes   * Modeling complex patterns of crack propagation: branching and merging mechanisms   *In collaboration with:* Dr. Carlo Barbieri, Dr. Stephen Wolfram   * Design of a coupled piezoelectric-magnetostrictive nano-resonator for the detection of environmental electromagnetic fields   *In collaboration with:* Dr. Stephanie Johnson, Prof. Jonathan Spanier   * Talus morphology and its relationship to the kinematics of the ankle joint   *In collaboration with:* Prof. Sorin Siegler | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Publications** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peer-reviewed Journal Publications | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Di Stasio, L., Liu Y., & Moran, B. (2021). Large deformation near a crack tip in a fiber-reinforced neo-Hookean sheet with discrete and continuous distributions of fiber orientations. *Theoretical and Applied Fracture Mechanics, 114,* 103020.   https://dx.doi.org/10.1016/j.tafmec.2021.103020   1. Di Stasio, L., Varna, J., & Ayadi, Z. (2021). Growth of interface cracks on consecutive fibers: On the same or on the opposite sides? *Materials Today: Proceedings, 34(1),* 360-365.   https://dx.doi.org/10.1016/j.matpr.2020.06.410   1. Di Stasio, L., Varna, J., & Ayadi, Z. (2020). Effect of the proximity to the 0°/90° interface on Energy Release Rate of fiber/matrix interface crack growth in the 90°-ply of a cross-ply laminate under tensile loading. *Journal of Composite Materials, 54(21),* 3021-3034.   https://dx.doi.org/10.1177/0021998320912810   1. Di Stasio, L., & Ayadi, Z. (2019). Finite Element solution of the fiber/matrix interface crack problem: Convergence properties and mode mixity of the Virtual Crack Closure Technique. *Finite Elements in Analysis and Design, 167,* 103332.   https://dx.doi.org/10.1016/j.finel.2019.103]332   1. Di Stasio, L., Varna, J., & Ayadi, Z. (2019). Energy release rate of the fiber/matrix interface crack in UD composites under transverse loading: Effect of the fiber volume fraction and of the distance to the free surface and to non-adjacent debonds. *Theoretical and Applied Fracture Mechanics, 103,* 102251.   https://dx.doi.org/10.1016/j.tafmec.2019.102251 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conference Proceedings | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Di Stasio, L., Varna, J., & Ayadi, Z. (2019). Estimating the average size of fiber/matrix interface cracks in UD and cross-ply laminates. In Turon, A., Maimì, P., & Fagerström, M. (Eds.), *Proceedings of the 7th ECCOMAS Thematic Conference on the Mechanical Response of Composites (Composites 2019), Girona, Spain, September 18-20, 2019* (pp. 57-68).   Retrieved from https://documentations.wiki/R9NAz/proceeding-composites-2019-v4-pdf.html   1. Di Stasio, L., Varna, J., & Ayadi, Z. (2018). Effect of boundary conditions on microdamage initiation in thin ply composite laminates. In *Proceedings of the 18th European Conference on Composite Materials (ECCM18), Athens, Greece, June 24-28, 2018.*   Retrieved from https://az659834.vo.msecnd.net/eventsairwesteuprod/production-pcoconvin-public/f02831a803b64483b250b93c1536cb00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Theses | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Di Stasio, L. (2019). *Influence of microstructure on debonding at the fiber/matrix interface in fiber-reinforced polymers under tensile loading* [Doctoral dissertation, Luleå University of Technology and Université de Lorraine].   Digitala Vetenskapliga Arkivet (DiVA). http://urn.kb.se/resolve?urn=urn:nbn:se:ltu:diva-76646 Université de Lorraine thesis repository. http://docnum.univ-lorraine.fr/public/DDOC\_T\_2019\_0229\_DI\_STASIO.pdf   1. Di Stasio, L. (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’s thesis, Politecnico di Milano].   Digital archive of PhD and post graduate theses (POLITesi). http://hdl.handle.net/10589/82983 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Conference Contributions and Seminars** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Di Stasio, L., & Moran, B. (2022, July 7). *A Dugdale-Barenblatt model for cracks in thin neo-Hookean sheets* [Conference session, oral presentation]. 11th European Solid Mechanics Conference (ESMC 2022), Galway, Ireland. 2. Di Stasio, L. (2020, July 27). *Native scripting in Windows: the Command Prompt interface* [Conference session, oral presentation]. CarpentryCon @ Home 2020 – Growing Inclusive, Computational Communities and Leaders, online. https://youtu.be/hRYBGsCxfDY 3. Di Stasio, L., Varna, J., & Ayadi, Z. (2019, November 6). *Towards tough self-healing thin-ply laminates – Insights from computational micromechanical modeling and high-temperature experimental investigation of onset and propagation of transverse cracking* [Seminar, oral presentation]. LTU Composites Seminars Series, Luleå, Sweden. 4. Di Stasio, L., (2019, October 16). *Towards tough self-healing thin-ply laminates – Insights from computational micromechanical modeling and high-temperature experimental investigation of onset and propagation of transverse cracking* [Seminar, oral presentation]. Invited seminar at KTH, Department of Fiber and Polymer Technology, Stockholm, Sweden. 5. Di Stasio, L., Varna, J., & Ayadi, Z. (2019, September 26). *Effect of microstructure on fiber/matrix interface crack growth in UD and cross-ply laminates under tensile loading* [Seminar, oral presentation]. Invited seminar at Universidad de Sevilla, ETSI, Elasticity and Strength of Materials Group, Sevilla, Spain. 6. Di Stasio, L., Varna, J., & Ayadi, Z. (2019, September 18). *Estimating the average size of fiber/matrix interface cracks in UD and cross-ply laminates* [Conference session, oral presentation]. 7th ECCOMAS Thematic Conference on the Mechanical Response of Composites (Composites 2019), Girona, Spain. 7. Di Stasio, L., (2019, September 17). *Ply-thickness and ply-block effect on fiber/matrix interface crack growth in cross-ply laminates under tensile loading* [Seminar, oral presentation]. Invited seminar at IMDEA Materials Institute, Madrid, Spain. 8. Di Stasio, L., Varna, J., & Ayadi, Z. (2019, May 29). *Ply-thickness effect on fiber-matrix interface crack growth* [Conference session, oral presentation]. 9th International Conference on Composite Testing and Model Identification (CompTest2019), Luleå, Sweden. 9. Di Stasio, L., Varna, J., & Ayadi, Z. (2019, May 8). *Growth of interface cracks on consecutive fibers: on the same or on opposite sides?* [Conference session, oral presentation]. 12th International Conference on Composite Science and Technology (ICCST/12), Sorrento, Italy. 10. Di Stasio, L., Varna, J., & Ayadi, Z. (2019, April 26). *Investigation of scaling laws of the fiber/matrix interface crack in polymer composites through Finite Element-based micromechanical modeling* [Conference session, oral presentation]. 10th EEIGM International Conference on Advanced Materials Research, Moscow, Russia. 11. Di Stasio, L., Varna, J., & Ayadi, Z. (2018, June 26). *Effect of Boundary Conditions on Microdamage Initiation in Thin Ply Composite Laminates* [Conference session, oral presentation]. 18th European Conference on Composite Materials (ECCM18), Athens, Greece. 12. Di Stasio, L., Varna, J., & Ayadi, Z. (2017, September 12). *Finite Elements Solution of the Fiber-Matrix Interface Crack: Effects of Mesh Refinement and Domain Size* [Seminar, oral presentation]. DocMASE Summer School 2017, Saarbrücken, Germany. 13. Di Stasio, L., Varna, J., & Ayadi, Z. (2017, July 5). *Micromechanical models of transverse cracking in ultra-thin Fiber-Reinforced Composite laminates* [Seminar, oral presentation]. Journée de l’équipe 304 de l’Institut Jean Lamour, Nancy, France. 14. Di Stasio, L., Varna, J., & Ayadi, Z. (2017, April 6). *Micromechanical modeling of thin ply effects on microdamage in Fiber-Reinforced Composite laminates* [Conference session, oral presentation]. International Materials Research Meeting in the Greater Region. 15. Di Stasio, L., Varna, J., & Ayadi, Z. (2016, May 30). *RVE-based Micromechanical Analysis of Fiber-Matrix Debonding in Thin Ply FRPC Laminates* [Seminar, oral presentation]. DocMASE Summer School 2016, Luleå, Sweden. 16. Di Stasio, L. (2012, July 12). *Modeling complex patterns of crack propagation: branching and merging mechanisms* [Seminar, oral presentation]. Wolfram Summer School 2012, Milton, MA, USA. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Teaching** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Courses | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep 2020 – Feb 2021 | | | | Solid Mechanics (in French) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | EEIGM, Université de Lorraine | | | | | | | | | | | | | | | | Nancy, France | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Luca Di Stasio | | | | | | | | | | | | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Thomas Villemin, Zoubir Ayadi, Jean-Philippe Tinnes, Marc Ponçot, Stéphane Andre | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2018 - 2019 | | | | Composite Materials | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Autum and Spring Term | | | | Luleå University of Technology | | | | | | | | | | | | | | | Luleå, Sweden | | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Liva Pupure, Janis Varna | | | | | | | | | | | | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Luca Di Stasio, Hiba Ben Kahla, Nawres Al-Ramahi | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2018 - 2019 | | | | Aerospace Materials | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spring Term | | | | Luleå University of Technology | | | | | | | | | | | | | | | Luleå, Sweden | | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Janis Varna | | | | | | | | | | | | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Luca Di Stasio, Hiba Ben Kahla, Nawres Al-Ramahi | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2018 - 2019 | | | | Composites: Design and Numerical Methods | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Autum Term | | | | Luleå University of Technology | | | | | | | | | | | | | | | Luleå, Sweden | | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Andrejs Pupurs | | | | | | | | | | | | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Luca Di Stasio | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2018 - 2019 | | | | Mechanics of Fiber Composites | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spring Term | | | | Luleå University of Technology | | | | | | | | | | | | | | | Luleå, Sweden | | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Liva Pupure | | | | | | | | | | | | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Luca Di Stasio | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep – Dec 2017 | | | | Composite Materials (in French) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | EEIGM, Université de Lorraine | | | | | | | | | | | | | | | | Nancy, France | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Yves Meshaka | | | | | | | | | | | | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Luca Di Stasio | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep – Dec 2017 | | | | Mechanics of Materials I (in French) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | EEIGM, Université de Lorraine | | | | | | | | | | | | | | | | Nancy, France | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Zoubir Ayadi | | | | | | | | | | | | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Luca Di Stasio, Franck Cleymand, Eloh Komlavi | | | | | | | | | | | | | | | | | | | | | | | | | |
| Feb – Jun 2017 | | | | Solid Mechanics (in French) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | EEIGM, Université de Lorraine | | | | | | | | | | | | | | | | Nancy, France | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Yves Meshaka | | | | | | | | | | | | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Luca Di Stasio | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lectures and Workshops | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2022, May 19 | | | | Introduction to Scientific Computing and Data Analysis with Numpy (in Italian) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Software Sustainability Institute | | | | | | | | | | | | | | | | Online | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Luca Di Stasio | | | | | | | | | | |  | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Giacomo Peru | | | | | | | | | | |  | | | | | | | | | | | | | | |
| 2022, Jan 27-28/Feb 3-4 | | | | Software Carpentry Workshop: introduction to Python, Shell and Git (in Italian) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Carpentries Italia and Elixir Italia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Online | | | | | | |
|  | | | | *Main Instructor(s):* | | | | | | | | | | Marco Crotti, Silvia Di Giorgio, Luca Di Stasio, Lisanna Paladin, Martino Sorbaro | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | *TA(s):* | | | | | | | | | | Giacomo Peru, Loredana Le Pera | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2021, Sep 9-10/16-17 | | | | Software Carpentry Workshop: introduction to Python, Shell and Git (in Italian) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Carpentries Italia and Elixir Italia | | | | | | | | | | | | | | | | | | | | | Online | | | | | | | | | | | | | | |
|  | | | | *Main Instructor(s):* | | | | | | | | | | Silvia Bonaiuto, Vincenza Colonna, Marco Crotti, Gianluca Damaggio, Luca Di Stasio, Loredana Le Pera, Mariano Mollo, Giuseppe Profiti, Martino Sorbaro, Allegra Via, Lisanna Paladin | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2021, Mar 19/26 | | | | Software Carpentry Workshop: introduction to Python, Shell and Git (in Italian) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Carpentries Italia | | | | | | | | | | | | | | | | | | | | | Online | | | | | | | | | | | | | | |
|  | | | | *Main Instructor(s):* | | | | | | | | | | Luca Di Stasio, Giorgia Mori, Giacomo Peru, Giuseppe Profiti, Martino Sorbaro | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | *TA(s):* | | | | | | | | | | Fabrizio Donzelli, Annarita Marrano, Mosè Giordano, Loredana Le Pera | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2021, Mar 3-4 | | | | The Carpentries Instructor Training Workshop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | The Carpentries | | | | | | | | | | Online | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | *Main Instructor(s):* | | | | | | | | | | Luca Di Stasio, Jason Williams | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2020, Oct 21-23 | | | | Data Carpentry Genomics Workshop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Nord University | | | | | | | | | | Online | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | *Main Instructor(s):* | | | | | | | | | | Luca Di Stasio, Endre Sebestyén | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | *TA(s):* | | | | | | | | | | Abdurhman Kelil Ali, Kari Haugset Alterskjær, Tadeu Fernando Nogueira | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2020, Oct 14-16 | | | | Data Carpentry Ecology Workshop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Nord University | | | | | | | | | | Online | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | *Main Instructor(s):* | | | | | | | | | | Luca Di Stasio, Endre Sebestyén | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | *TA(s):* | | | | | | | | | | Abdurhman Kelil Ali, Kari Haugset Alterskjær, Tadeu Fernando Nogueira | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2020, June 22 – July 2 | | | | Data Carpentry Ecology Workshop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Biotech Partners | | | | | | | | | | Online | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | *Main Instructor(s):* | | | | | | | | | | Luca Di Stasio, Rohit Goswami, Sue McClatchy, Chandra Sarkar, Sayane Shome | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2020, January 9-10 | | | | Software Carpentry/Library Carpentry Workshop: Introduction to Python | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | King’s College London | | | | | | | | | | | | | | | | London, UK | | | | | | | | | | | | | | | | | | | |
|  | | | | *Main Instructor(s):* | | | | | | | | | | Luca Di Stasio | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | *TA(s):* | | | | | | | | | | Stefania Marcotti, Walter Muruez Gutierrez, Neil Jakeman, Alessia Visconti, Natasha Romanova, Fiona Wardle | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2019, November 21-22 | | | | Software Carpentry Workshop: introduction to Python, Shell and Git | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Universität Stuttgart | | | | | | | | | | | | | | | | Stuttgart, Germany | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Monah Abou Alezz, Luca Di Stasio | | | | | | | | | | | | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Dorothea Iglezakis, Ralf Diestelkämper, Michael Stegmüller, Anett Seeland, Sibylle Hermann | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2018, October 9-10 | | | | Software Carpentry Workshop: introduction to R, Shell and Git | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | HPC2N, Umeå University | | | | | | | | | | | | | | | | Umeå, Sweden | | | | | | | | | | | | | | | | | | | |
| *Main Instructor(s):* | | | | | | | | | | | | | | Alistair Bailey, Luca Di Stasio | | | | | | | | | | | | | | | | | | | | | | | | | |
| *TA(s):* | | | | | | | | | | | | | | Birgitte Briydsö, Pedro Ojeda | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Organization of Conferences, Seminars and Workshops** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2022, Jan 27-28/Feb 3-4 | | | | Software Carpentry Workshop: introduction to Python, Shell and Git (in Italian) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2021, Sep 9-10/16-17 | | | | Software Carpentry Workshop: introduction to Python, Shell and Git (in Italian) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2021, Mar 19/26 | | | | Software Carpentry Workshop: introduction to Python, Shell and Git (in Italian) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2019, May 27-29 | | | | 9th International Conference on Composite testing and model identification (CompTest 2019) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Scholarly Peer Review** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * Journal of Composite Materials * Journal of Open Research Software * Frattura ed Integrità Strutturale | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Professional Honors and Awards** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2019 | | **Wallenberg Jubileumsanslaget Travel Grant** | | | | | | | | | | | | | | | | | | Knut and Alice Wallenberg Foundation | | | | | | | | | | | | | | | | | | | |
|  | | Travel expenses for the participation to the 12th International Conference on Composite Science and Technology. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2019 | | **Erasmus+ Higher Education** | | | | | | | | | | | | | | | | | | European Commission | | | | | | | | | | | | | | | | | | | |
|  | | Travel expenses for a one-week visit to the Elasticity and Strength of Materials Group of Prof. Federico Paris at Universidad de Sevilla (Sevilla, Spain). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2015 – 2018 | | **Erasmus Mundus Fellowship** | | | | | | | | | | | | | | | | | | European Commission | | | | | | | | | | | | | | | | | | | |
|  | | Stipend and travel expenses for the participation to the Joint European Doctoral Program in Advanced Materials Science and Engineering (DocMASE). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2013 | | **PEGASUS Award** | | | | | | | | | | | | | | | | | | PEGASUS | | | | | | | | | | | | | | | | | | | |
|  | | Recognition of special achievements in European cooperation through working abroad for academic research or industrial development projects from PEGASUS (European Network of Excellence in Aerospace Engineering Education). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2012 – 2013 | | **Erasmus Fellowship** | | | | | | | | | | | | | | | | | | European Commission | | | | | | | | | | | | | | | | | | | |
|  | | Stipend and travel expenses to conduct a research project at IMDEA Materials Institute as part of the Double Master Degree EAGLES (Engineers as Global Leaders for Energy Sustainability) program. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2011 – 2012 | | **EU-US Atlantis Program Fellowship** | | | | | | | | | | | | | | | | | | European Commission & US DoEd | | | | | | | | | | | | | | | | | | | |
|  | | Full tuition, stipend and travel expenses to conduct graduate studies at Drexel University as part of the Double Master Degree EAGLES (Engineers as Global Leaders for Energy Sustainability) program. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2012 | | **Academic Excellence Award** | | | | | | | | | | | | | | | | | | BCC di Cernusco s/N | | | | | | | | | | | | | | | | | | | |
|  | | Award for excellence in undergraduate studies. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2007 – 2010 | | **Merit-based Tuition Fees Exemption** | | | | | | | | | | | | | | | | | | Politecnico di Milano | | | | | | | | | | | | | | | | | | | |
|  | | Merit-based partial exemption from tuition fees to conduct undergraduate studies. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2007 | | **Academic Excellence Award** | | | | | | | | | | | | | | | | | | BCC di Cernusco s/N | | | | | | | | | | | | | | | | | | | |
|  | | Award for excellence in high school studies. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2007 | | **Academic Excellence Award** | | | | | | | | | | | | | | | | | | Italian government | | | | | | | | | | | | | | | | | | | |
|  | | Award for excellence in high school studies. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |