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| **Luca Di Stasio** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Postdoctoral (Experienced) Researcher in Mechanical Engineering** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Discovery Boulevard, G-3900, KAUST, Thuwal, Saudi Arabia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Italian & EU Citizen** | | | | **Driving License B (IT)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **(+966) 53 419 70 84** | | | |  | | | | | | | | | | | | | | | | | | | | | | | | **luca.distasio@gmail.com** | | | | | | | | | | |
| **Profile** | | | | Industrial engineer and scientific researcher expert in design and multi-physics modelling, I’m a creative problem-solver and challenge-driven. Experienced in conducting innovative projects from conception to exploitation, both as leader and collaborator. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Employment History** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Kaust** | | | | | | | | | | | | | | | | | | | | | | | | | | | | Thuwal, Saudi Arabia | | | | | | | | | | |
| Apr 2020 - Present | | | | **Postdoctoral (Experienced) Researcher** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | * 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 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** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | * Completed successfully an international research project between institutions in France, Sweden, and Germany * Developed automated software pipelines for the semi- and un-supervised generation and analysis of numerical models * Developed models of fracture for thin-ply laminates * Co-supervised master students’ research projects * Disseminated results through the publication of journal articles * Presented results at international conferences and seminars | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Université de Lorraine** | | | | | | | | | | | | | | | | | | | | | | | | | | | | Nancy, France | | | | | | | | | | |
| Sep 2015 – Dec 2017 | | | | **Early-stage Researcher** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | * Kickstarted an international research project (between institutions in France, Sweden and Germany) * 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **ETH Zürich** | | | | | | | | | | | | | | | | | | | | | | | | | | | | Zürich, Switzerland | | | | | | | | | | |
| Sep 2013 – Aug 2015 | | | | **R&D Engineer** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | * 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** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | * 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **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 | | | | | | | | | | |
| **Professional Development (Selected)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| May 2021 | | | | **Structuring Machine Learning Projects** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | DeepLearning.AI (through Coursera) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | USA | | | | |
| Apr 2021 | | | | **Neural Networks and Deep Learning** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | DeepLearning.AI (through Coursera) | | | | | | | | | | | | | | | | | | | USA | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | |
| Sep – Nov 2016 | | | | **Project Management** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Ecole Centrale Lille | | | | | | | | | | | | | | | | France | | | | | | | | | | | | | | | | | | |
| Jul 2015 | | | | **Effective Exploitation of High Performance Computing Systems** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | Swiss National Supercomputing Center | | | | | | | | | | | | | | | | | | | | | | Switzerland | | | | | | | | | | | | |
| **Computer Skills** | | | | | | C++ | | | | | Python | | | Julia | | | Fortran | | | | | | R | | | | Matlab | | | | | Mathematica | | | | | Maple | |
| Windows Batch | | | Unix Shell | | | | Abaqus | | | | | Ansys | | | | Comsol | | | FEniCs | | | | | | | OpenFOAM | | | | | Thermal Desktop | | | | | | | AutoCAD |
| 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 | | | | | | | | |