



# Luca Di Stasio

## Early Stage Researcher

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## Publications

### Peer-reviewed journal publications

- 2019 Luca Di Stasio, Janis Varna, Zoubir Ayadi (2019). **Energy release rate of fiber/matrix interface crack growth in cross-ply laminates under transverse loading: effect of the 0°/90° interface and of 0° layer thickness**  
Submitted to *Composites Part A: Applied Science and Manufacturing*
- Luca Di Stasio, Zoubir Ayadi (2019). **Finite Element solution of the fiber/matrix interface crack problem: convergence properties and mode mixity of the Virtual Crack Closure Technique**  
Submitted to *Finite Elements in Analysis and Design*
- Luca Di Stasio, Janis Varna, Zoubir Ayadi (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. DOI: 10.1016/j.tafmec.2019.102251

### Conference proceedings

- 2019 Luca Di Stasio, Janis Varna, Zoubir Ayadi (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 (ICCST/12) - Sorrento, Italy - May 8-10<sup>th</sup>, 2019
- 2018 Luca Di Stasio, Janis Varna, Zoubir Ayadi (2019). **Effect of boundary conditions on microdamage initiation in thin ply composite laminates**  
Proceedings of the 18<sup>th</sup> European Conference on Composite Materials (ECCM18) - Athens, Greece - June 24-28<sup>th</sup>, 2018

### Conference contributions & Seminars

- 2019 Luca Di Stasio, Janis Varna, Zoubir Ayadi (2019). **Ply-thickness effect on fiber-matrix interface crack growth**  
9<sup>th</sup> International Conference on Composite Testing and Model Identification (COMPTTEST2019) - May 27-29, 2019 - Luleå, Sweden
- Luca Di Stasio, Janis Varna, Zoubir Ayadi (2019). **Growth of interface cracks on consecutive fibers: on the same or on the opposite sides?**  
12<sup>th</sup> International Conference on Composite Science and Technology (ICCST/12) - Sorrento, Italy - May 8-10<sup>th</sup>, 2019
- Luca Di Stasio, Janis Varna, Zoubir Ayadi (2019). **Investigation of scaling laws of the fiber/matrix interface crack in polymer composites through finite element-based micromechanical modeling**  
10<sup>th</sup> EEIGM International Conference on Advanced Materials Research - April 25-26, 2019 - Moscow, Russia
- 2018 Luca Di Stasio, Janis Varna, Zoubir Ayadi (2018). **Effect of boundary conditions on microdamage initiation in thin ply composite laminates**  
18<sup>th</sup> European Conference on Composite Materials (ECCM18) - June 24-28, 2018 - Athens, Greece
- 2017 Luca Di Stasio, Janis Varna, Zoubir Ayadi (2017). **Micromechanical models of transverse cracking in ultra-thin Fiber-Reinforced composite laminates**  
Journée de l'équipe 304 de l'IJL - July 5, 2017 - Nancy, France
- Luca Di Stasio, Janis Varna, Zoubir Ayadi (2017). **Micromechanical modeling of thin ply effects on microdamage in Fiber Reinforced Composite laminates**  
International Materials Research Meeting of the Greater Region (IMRM) - April 6-7, 2017 - Saarbrücken, Germany

### Poster contributions

- 2017 Luca Di Stasio, Janis Varna, Zoubir Ayadi (2019). **Micromechanical Models of Transverse Cracking in Ultra-thin Fiber-Reinforced Composite Laminates**  
Seminar of the Doctoral School EMMA (now C2MP) - Nancy, France - May 4, 2017

### Theses

- 2013 Luca Di Stasio (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, MSc in Space Engineering - Politecnico di Milano (Milano, Italy)