

# Luca Arleo

## Education

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### PhD in Biorobotics

10/2020 – present

The BioRobotic Institute, Sant'Anna School of Advanced Studies - Pontedera, Italy

Member of the *Soft Mechatronics for Biorobotics Lab*

### MS in Mechanical Engineering

09/2017 – 02/2020

Polytechnic of Bari - "Magna Grecia" Interdepartmental Centre - Taranto, Italy

Thesis - *Soft Robotics: additive manufacturing of a multidirectional manipulator*

Final grade: 110/110 and praise

### BS in Mechanical Engineering

09/2014 – 09/2017

Polytechnic of Bari - "Magna Grecia" Interdepartmental Centre - Taranto, Italy

Thesis – *Development of an electrodynamic shaker for anti-icing surfaces characterization*

Final grade: 107/110

## Curricular activities

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### Academic papers:

L. Arleo *et al.*, "Layer Jamming for Variable Stiffness Shoes," in IEEE Robotics and Automation Letters, vol. 7, no. 2, pp. 4181-4187, April 2022

L. Arleo *et al.*, "Design methodology for the development of variable stiffness devices based on layer jamming transition." Engineering Research Express 3.3 (2021): 035033.

L. Arleo *et al.*, "I-support soft arm for assistance tasks: a new manufacturing approach based on 3D printing and characterization". Prog Addit Manuf 6, 243–256 (2021).

G. Percoco, L. Arleo *et al.*, "Analytical model to predict the extrusion force as a function of the layer height, in extrusion based 3D printing", Additive Manufacturing, Volume 38, 2021, 101791, ISSN 2214-8604.

G. Stano, L. Arleo, *et al.*, "Additive Manufacturing for Soft Robotics: Design and Fabrication of Airtight, Monolithic Bending PneuNets with Embedded Air Connectors", Micromachines 2020, 11, 485.

### Research Fellow

04/2020 – 09/2020

The BioRobotic Institute, Sant'Anna School of Advanced Studies - Pontedera, Italy

Research activity conducted at the *Soft Mechatronics for Biorobotics Lab*.

## Languages

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**Italian (Native speaker)**

**English**