



# Giulia Raffaele

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## WORK EXPERIENCE

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 **ISTITUTO ITALIANO DI TECNOLOGIA** – GENOA, ITALY  
**PHD RESEARCH FELLOW** – 01/11/2024 – 30/04/2025

 **ISTITUTO ITALIANO DI TECNOLOGIA** – PONTEDERA, ITALY  
**RESEARCH FELLOW** – 01/05/2021 – 31/10/2021

## EDUCATION AND TRAINING

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01/11/2021 – 30/06/2025 Genova, Italy  
**PHD STUDENT** Istituto Italiano di Tecnologia in collaboration with University Federico II di Napoli

**Field of study** AI applied to Agrifood and Environment |

**Thesis** Host ad symbiont pre-symbiotic interactions: biological investigations towards artificial parallelisms

2018 – 2020 Roma, Italy  
**GRADUATE DEGREE** Sapienza Università di Roma

**Field of study** Environmental Monitoring and Requalification (LM-75) | **Final grade** 110/110 cum laude |

**Thesis** Biosynthetic tracts of nitrogen monoxide in the roots of *Oryza sativa* L. exposed to Cd and As

## PUBLICATIONS

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2024  
[Plant Root Growth Responses to Mycorrhizal Fungi: In Vivo Characterization Through Time-Series Microscopy Analysis](#)

DOI: 10.1109/MetroAgriFor63043.2024.10948764

**Authors:** Giulia Raffaele, Marilena Ronzan, Carlo Filippeschi, Emanuela Del Dottore and Barbara Mazzolai | **Journal Name:** IEEE International Workshop on Metrology for Agriculture and Forestry (MetroAgriFor) 2024

2023  
[Sporify: An Automated Tool to Quantify Spores in Z-Stacked 3D Samples](#)

DOI: 10.1007/978-3-031-39504-8\_12

**Authors:** Oscar Sten, Emanuela Del Dottore, Giulia Raffaele, Marilena Ronzan, Nicola M. Pugno and Barbara Mazzolai | **Journal Name:** Conference on Biomimetic and Biohybrid Systems. Living Machines 2023

## CONFERENCES & SEMINARS

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05/02/2025 – 07/02/2025 Genoa  
**Conference of Young Botanist (CYBO)**

29/10/2024 – 31/10/2024 Padova  
**IEEE Metrology for Agriculture and Forestry (MetroAgriFor)**

12/06/2024 – 14/06/2024 Verona  
**Meeting Annuale Società Botanica Italiana di "Biologia Cellulare e Molecolare" e "Biotecnologie e Differenziamento"**

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10/07/2023 – 13/07/2023 Genova

## Living Machines Conference on Biomimetic and Biohybrid Systems

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### ● **SCHOOLS AND WORKSHOP**

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12/02/2024 – 15/02/2024

#### International Winter School on Environmental Intelligence (Florence, Italy)

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03/10/2024 – 04/10/2024

#### Summer School in Intelligenza artificiale: opportunità di formazione e di sviluppo per il settore agricolo italiano (Portici, Italy)

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27/03/2023 – 28/03/2023

#### How to write a scientific paper (Genoa, Italy)

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24/10/2022 – 28/10/2022

#### International training on in vitro culture of arbuscular mycorrhizal fungi (Louvain-la-Neuve, Belgium)

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30/11/2021 – 03/12/2021

#### 6th NIC@IIT PRACTICAL WORKSHOP on ADVANCED MICROSCOPY (Genoa, Italy)

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### ● **SKILLS**

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botany | In Vivo and In Vitro experiments | Plant Molecular Biology | Plant Analysis | Molecular and Biochemical Studies | microscopic techniques | knowledge of main chemistry and microbiology laboratory experiences | Microsoft Office | Team-work oriented | Good listener and communicator | cooperate with colleagues | Flexibility

### ● **COURSES AND SEMINARS**

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#### Doctoral Courses

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13/05/2022 to 22/07/2022 Ph.D. Course "Machine Learning vs Deep Learning" thanks to which I learned a new vision on the computer sciences.

11/05/2022 to 19/07/2022 Ph.D. Course "AI Applications in agriculture and environmental sciences" thanks to which I improved my knowledge on the environmental sciences and agriculture parallelism with AI.

27/01/2023-14/03/2023 Ph.D. Course "Computer Vision" thanks to this course I learned new techniques for image processing.

#### Seminars

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22/09/2022 Seminar Professor Claudio Stockle "Digital agriculture: What is the promise?"

26/09/2022 Seminar Professor Claudio Stockle "Modelling and Data Integration for Operational Applications in Agriculture"

23/01/2024 Seminar Paolo Traverso "Spotlight Seminars on AI: Planning and Acting to learn"

25/06/2024 Natural-artificial, an online seminar about bioinspired sustainable robotics

### ● **COMMUNICATION ACTIVITIES**

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11/02/2025

#### School Day

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20/04/2024

#### Robot Valley

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21/06/2023

#### Friends & Family day

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29/06/2023

#### Ocean Race

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01/07/2022

#### Festival dello spazio

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