

CURRICULUM VITAE



IDENTIFICATION

Last name – First name(s)

Address

Phone

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Nationality

Date of Birth

[GIOELLI FABRIZIO STEFANO]

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fabrizio.gioelli@unito.it

Italian

[22/11/1971]

WORK EXPERIENCE

• **2015 – present**

Associate professor of Agricultural Mechanics at the Dept. of Agricultural, Forest and Food Sciences of the University of Torino.

2006 - 2015

Full-time researcher (permanent staff) at the Dept. of Agricultural, Forest and Food Sciences of the University of Torino.

• **2003 - 2006**

Post-doc at the Dept. of Agricultural, Forest and Food Sciences of the University of Torino.

• **2000 - 2003**

Ph.D. student at the Institute of Agricultural Engineering of the University of Milan.

• **1999 - 2000**

Research Award Holder at the Dept. of Agricultural, Forest and Food Sciences of the University of Torino.

ACADEMIC AND INSTITUTIONAL ROLES

• **November 2021 – present**

Director of the DiSAFA - Crop Protection Technology Laboratory

• **June 2021**

National Scientific Habilitation to the role of Full professor (Sector 07/C1 – Agricultural, Forest and Biosystems Engineering)

• **2019 – present**

Member of the Teaching Commission of the Master Degree in Sciences and Food Technology of the DiSAFA – University of Torino.

• **2018**

Head of the Scientific Committee of the international Conference Biogas Science 2018 (17-19 Sept. 2018, Torino, Italy)

• **2016 - present**

Member of the Teaching Commission of the Master Degree in Agricultural Sciences and the Research Commission of the DiSAFA – University of Torino.

EDUCATION AND TRAINING

• **2003**

Ph.D. in Agricultural Engineering (XVI Cycle) at the University of Milan

• **1999**

Master Degree in Agricultural Sciences at the University of Torino

• **1991**

High School Diploma (Liceo Scientifico Segre – Torino, Italy)

PERSONAL SKILLS	
MOTHER TONGUE	[Italian]
OTHER LANGUAGE(S)	[English]
<ul style="list-style-type: none"> • Reading • Speaking • Writing 	<p>[C1]</p> <p>[C1]</p> <p>[C1]</p>
ORGANIZATIONAL SKILLS	<p>Scientific responsible and/or participant of several national and European projects.</p> <p>Project management</p> <p>Organization and execution of inspection of sprayers in use in Italy within the ENAMA-ENTAM circuits</p> <p>Coordinator of the DiSAFA – Crop Protection Technology research Group.</p> <p>Coordination of the DiSAFA – Waste Management Group</p>
TECHNICAL SKILLS AND COMPETENCES	<p>Expert in the field of Agricultural Mechanics with special regards to the following aspects:</p> <ul style="list-style-type: none"> - development and testing of sprayers and their components; - study, planning and execution of experimental trials for PPP drift assessment; - spray deposition and coverage measurement; - droplet size spectra measurement; - point source reduction; - spray drift mitigation; - development and testing of machineries for livestock waste management; - development and testing of machineries and sensors for Variable Rate Application under the Precision Agriculture concept; - Plants for renewable energy production (monitoring and development of solutions to improve their sustainability and performances); - measurement of ammonia and GHG emission from agriculture, development of mitigation techniques.
DRIVING LICENSES	A3, B

OTHER INFORMATION

PARTICIPATION TO EU-PROJECTS

EU-Agrobiogas (6th FP)
REUSEWASTE (Marie-Curie ITN 7th Framework Programme)
Life-AQUA,
Life-OPTIMAL
Life-AGRICLOSE
Life-PERFECT,
H2020-INNOSETA,
H2020-OPTIMA,
PPP exposure models for 3D orchards considering spraying technologies in Southern Europe (GP/EFSA/ENCO/2020/03),
Evaluation of new evidence on Non-Dietary Exposure to Plant Protection Products (GP/EFSA/PREV/2022/02) – principal investigator

SCIENTIFIC PUBLICATIONS

Author of more than 150 papers, 46 of which indexed on Scopus.

Latest publications:

Mozzanini, E., Bhalekar, D.G., Grella, M., Hoheisel, G.-A., Samyd, S., Balsari, P., **Gioelli, F.**, Khot, L.R. (2024). Cleaning performance evaluation of pneumatic spray delivery based solid set canopy delivery system. *Journal of the ASABE* 67(4). DOI: 10.13031/ja.15944.

Mozzanini E., Grella M., Marucco P., Hoheisel G.-A., Biglia A., Balsari P., **Gioelli F.** (2024). Hydraulic-based fixed spray delivery system: homogeneity distribution among emitters and internal cleaning performances evaluation. *Crop Protection*, 175, 106440.

Grella M., **Gioelli F.**, Marucco P., Zertvaegher I., Mozzanini E., Pittarello M., Balsari P., Fountas S., Nuyttens D., Mezzalama M., Pugliese M. (2023). Assessment of microbial biocontrol agent (BCA) viability to mechanical and thermal stress by simulating spray application conditions. *Pest Management Science*, 79 (11), 4423-4438.

Grella, M., Marucco, P., Llop, J., **Gioelli, F.** (2023). Special issue on Precision Technologies and Novel Farming Practices to Reduce Chemical Inputs in Agriculture. *Applied Sciences (Switzerland)*, 13(3), 1875.

Grella, M., Maffia, J., Dinuccio, E., Balsari, P., Miranda-Fuentes, A., Marucco, P., **Gioelli, F.** (2023). Assessment of fine droplets (<10µm) in primary airborne spray drift: a new methodological approach. *Journal of Aerosol Science*, 169, 106138.

Mozzanini, E., Grella, M., Marucco, P., Balsari, P., **Gioelli, F.** (2023). Characterization of irrigator emitter to be used as solid set canopy delivery system: which is best for which role in the vineyard? *Pest Management Science*, 79(2), 584-597.

Gioelli, F., Grella, M., Scarpeci, T.E., Rollè, L., Pierre, F.D., Dinuccio, E., (2022). Bio-Acidification of Cattle Slurry with Whey Reduces Gaseous Emission during Storage with Positive Effects on Biogas Production, *Sustainability (Switzerland)*, 14 (19).

Garcera, C., Moltó, E., Izquierdo, H., Balsari, P., Marucco, P., Grella, M., **Gioelli, F.**, Chueca, P. (2022). Effect of the Airblast Settings on the Vertical Spray Profile: Implementation on an On-Line Decision Aid for Citrus Treatments, *Agronomy*, 12 (6).

Grella, M., Marucco, P., **Gioelli, F.**, Balsari, P., Athanasakos, L., Mylonas, N., Fountas, S., Zwertvaegher, I., Nuyttens, D., Caffini, A., Meroni, F., Rossi, R. (2022). Airblast sprayer electrification for real-time, continuous fan-airflow adjustment according to canopy density during pesticide application in 3D crops How electrification can contribute to increased spray application efficiency *VDI Berichte*, 2022 (2395), pp. 389-396.

Grella, M., Marucco, P., Oggero, G., Manzone, M., **Gioelli, F.S.**, Balsari, P. (2022). Environmental Evaluation of Vineyard Airblast Sprayers Through a Comprehensive Spray Mass-Balance Approach. *Lecture Notes in Civil Engineering*, 252 LNCE, pp. 383-393.

Grella, M., **Gioelli, F.**, Marucco, P., Zwertvaegher, I., Mozzanini, E., Mylonas, N., Nuyttens, D., Balsari, P. (2022). Field assessment of a pulse width modulation (PWM) spray system applying different spray volumes: duty cycle and forward speed effects on vines spray coverage.

Precision Agriculture, 23(1), 219-252.

Grella, M., Miranda-Fuentes, A., Marucco, P., Balsari, P., **Gioelli, F.** (2020). Development of drift-reducing spouts for vineyard pneumatic sprayers: Measurement of droplet size spectra generated and their classification, Applied Sciences (Switzerland), 10 (21), art. no. 7826, pp. 1-21.

Gioelli, F., Marucco, P., Nuzzo, F., Balsari, P., (2020). *The H2020 INNOSETA Project*. Lecture Notes in Civil Engineering, 67, pp. 457-461.

**AFFILIATION TO SCIENTIFIC
ACADEMIAS**

MEMBER OF THE ITALIAN ASSOCIATION OF AGRICULTURAL ENGINEERING (AIIA)
MEMBER OF THE EUROPEAN SOCIETY OF AGRICULTURAL ENGINEERS (EURAgEng).
MEMBER OF THE ASSOCIATION OF APPLIED BIOLOGISTS (AAB)

Grugliasco, on 25/11//2024

Signature

A handwritten signature in black ink, appearing to read 'Fabrizio Gioelli', written over a horizontal line.