Giorgio Mongaretto

Curriculum Vitae

Via Confalonieri 34
61122, Pesaro, Italy
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Giorgio Mongaretto was born in Pesaro (PU), Italy, on 14/05/2000

Education

2022–2024 **Master's degree in Electrical Energy Engineering**, *University of Bologna*, Bologna, 110/110 *cum laude*, supervisor: prof. Andrea Cristofolini (University of Bologna)
Master thesis: *Numerical modeling of corona discharges for aeronautical applications*

2019–2022 **Bachelor's degree in Electrical Engineering**, *University of Bologna*, Bologna, 101/110, supervisor: prof. Paolo Seri (University of Bologna)
Bachelor thesis: *Fitting of trigger voltages of partial discharges in Weibull paper: dispersion factor estimation*

2014–2020 **High-school graduation**, *Liceo scientifico Guglielmo Marconi*, Pesaro, 94/100

Research interests

Plasma propulsion systems for atmospheric applications; non thermal plasma modeling; usage of drift and diffusion computational models to describe electrohydrodynamics (EHD) phenomena; ionic wind generation based on corona discharges and new electrode configuration; new numerical methods for corona discharge and ionic wind generation; study of possible solutions to limit ozone production and related issues in ionic wind generators (IGWs)

Attended master courses relevant to plasmas and gas discharges

Plasma engineering, *evaluation: 30/30 cum laude*

Applied electromagnetism, *evaluation: 30/30*

Innovative Electrical Technologies, *evaluation: 30/30 cum laude*

Diagnostic and design of insulating electric systems, *evaluation: 30/30*

Attended conferences

2025 **51st EPS Conference on Plasma Physics**, *Poster session: Numerical and experimental investigation of an atmospheric pressure DC corona discharge*

Skills

MATLAB, *finite-difference method (electrostatic problems), finite-element method (quasi-magnetostatic problems), drift-diffusion models for atmospheric-pressure air electrical discharges*

FEMM (Finite Element Method Magnetics), *(basic)*

Labview, *(basic)*

PVsist, *(basic)*

Office, *LaTeX (basic), Word (basic), Excel (basic), Power-point (basic)*

Gmsh, *(basic)*

Python, *(basic)*

Paraview, *(basic)*

Languages

Italian   mother tongue

English   intermediate, certification: University of Bologna - B2

Spanish   basic, no certification