



Emanuele Bombardi

Affiliate, Mechanical Engineering - Flow Physics and Computation

Bio

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Emanuele Bombardi received his BSc (2020) and MSc (2022) degrees in Mathematical and Aerospace Engineering from the Politecnico di Torino. He subsequently began his doctoral studies at the Aéro-Thermo-Mécanique Laboratory at the Université libre de Bruxelles, under the supervision of Prof. Alessandro Parente and co-supervised by Prof. Luca Magri at Imperial College London, within the MODELAIR project funded by a Horizon Europe Marie Skłodowska-Curie Actions grant, with an expected graduation in 2027. He is a participant in the 2026 Summer Program at the Center for Turbulence Research at Stanford University.

Bombardi's research focuses on data assimilation methods for turbulence modelling and pollutant dispersion in urban atmospheric flows. Specific topics of interest include the development of ensemble Kalman filter frameworks for the calibration of turbulence closures, uncertainty quantification for low-fidelity simulations using high-fidelity data, and the application of these methods to complex urban environments.