Marco Russo Cirillo

PhD candidate

Education

2012-2017 **Liceo Scientifico Statale Guglielmo Oberdan**
High School Diploma

2017-2021 **Università degli Studi di Trieste**
Bachelor degree in industrial engineering

Thesis: "Technologies for high voltage pulses: Marx's generator"

2021-2023 **Politecnico di Torino**
Masters Degree in Energy Engineering

Master thesis: "Carbon credits in the aviation sector: the contribution of biochar to carbon offsetting"

Honors and awards

October 2025 **Best paper award**
Best paper award at the World Hydrogen Technologies Convention 2025

Research experience

2024-present **University of Trieste**
Position PhD candidate

Publications

2025 **Journal publications**

Russo Cirillo, Marco and Del Mondo, Federico and Pivetta, Davide and Perusi, Damiano and Miola, Matteo and Marussi, Giovanna and Crosera, Matteo and Migliorini, Luigi and Bogar, Marco and Taccani, Rodolfo, "Experimental Characterization of a Small-Scale PEM Water Electrolyzer for Hydrogen Production", Journal of Physics: Conference Series, vol. 3143, 2025

2025 **Journal papers in review**

Sara Tamburelloa, Marco Russo Cirillo, Yurii Yakovlev, Iva Matolínová, Rodolfo Taccani, Andrea Coraddu, Marco Bogar, Lindert van Biert, "Polymer Electrolyte Membrane Fuel Cell Durability Test based on Ship Operating Cycle"
Submitted to: Electrochimica Acta

2025 **Conference papers**

Russo Cirillo, M., Degradation mechanisms in PEM electrolyzer and fuel cell: a comparative analysis and stress test evaluation, EPHyC – European PhD Hydrogen Conference, Book of abstract, Aprile 2025, Trieste (Italia)

Del Mondo F., Russo Cirillo M., Pivetta D., Bogar M., Taccani R.; Development of a numerical model for PEM electrolysers for the implementation of a simulation-based Digital Twin. EPHyC 2025 book of proceedings (2025).

Del Mondo F., Russo Cirillo M., Pivetta D., Bogar M., Taccani R., Development of a decision-oriented tool for operational management of a PEMWE, EFCH2 2025 book of proceedings, (2025).

Presentations and invited lectures

2025 **Paper Presentation**
"Experimental Characterization of a Small-Scale PEM Water Electrolyzer for Hydrogen Production" ATI Annual congress

"Degradation mechanisms in PEM electrolyzer and fuel cell: a comparative analysis and stress test evaluation" European PhD Hydrogen Conference

"Overview of the Potential of Numerical Modeling for the Deployment of Hydrogen in the Energy Transition" Hydrogen Ecosystem North Adriatic Conference

Professional affiliations

2024-2025 **University of Trieste**
PhD candidate