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Luca Pustina
Curriculum Vitae

Place Roma
Date 04/01/2023

Part I – General Information

Full Name	Luca Pustina
Citizenship	italiana
Spoken Languages	italiano, inglese

Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
PhD	2022	Roma Tre University	Mechanical and industrial engineering
Industrial engineer government exam	2020	Roma Tre University	Passed the government exam and licensed as an industrial engineer
University graduation	2018	Roma Tre University	Master degree in aeronautical engineering
University graduation	2016	Roma Tre University	Bachelor's degree in mechanical engineering

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
01/22	Today	Roma Tre University	Post-doctoral researcher

IIIB – Other Appointments

Start	End	Institution	Position
11/17	03/18	Universidad Carlos III de Madrid	Erasmus for master thesis

Part IV – Teaching experience

Year	Institution	Lecture/Course
2020-2021	Roma Tre University	Support to the teaching activity of the course "Analisi di Strutture Aeronautiche"
2018-2019	Roma Tre University	Tutor for the course "Analisi matematica 1"

Part V - Society memberships, Awards and Honors

Year	Title

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2022	Development of AdVanced hYbrid composite control surfaces and electromechanical lanDing gears, Investigator	Progetto di Ricerca Industriale e non preponderante Sviluppo Sperimentale (PNR 2015-2020)	5.416.711 euro
2021	Energia elettrica dal mare, Investigator	Ricerca di sistema	1.499.877 euro
2019	HYDRALAB+, Investigator	European Union's Horizon 2020	9.979.376 euro

Part VII – Research Activities

Keywords	Brief Description
Wind turbines	During my PhD, I've developed innovative control strategies (based on linear and nonlinear Reduced Order Models) for vibratory loads reduction and power production increase on onshore and floating wind turbines. Moreover, I was involved in experimental activities (both in the HYDRALAB+ and in the "Energia elettrica dal mare" projects) on floating wind turbines. Now, as a post-doctoral researcher, I'm analysing the effects of the aeroelastic scaling of a tilt-rotor aircraft on vibratory loads.
Control	
Reduced order model	
Aeroelasticity	
Tilt-rotor	

Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	7	Scopus	2020	2023
Papers [national]				

Total Impact factor**	52.013
Total Citations	23 (source: Scopus)
Average Citations per Product	3.29 (source: Scopus)
Hirsch (H) index	2 (source: Scopus)
Normalized H index*	0.5 (source: Scopus)

* H index divided by the academic seniority. The year of the first publication (2019) is considered for the academic seniority evaluation.

** evaluated as the sum of the single paper IF, Web of Science (WoS) IF is considered when available, otherwise, the Scopus IF is considered.

Part IX– Selected Publications

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

1) Pustina, L., Serafini, J., Pasquali, C., Solero, L., Lidozzi, A., & Gennaretti, M. (2023). A novel resonant controller for sea-induced rotor blade vibratory loads reduction on floating offshore wind turbines. *Renewable and Sustainable Energy Reviews*, 173, 113073. Cit: 0 (source: Scopus), IF: 16.799 (source: WoS)

2) Pustina, L., Biral, F., & Serafini, J. (2022). A novel Economic Nonlinear Model Predictive Controller for power maximisation on wind turbines. *Renewable and Sustainable Energy Reviews*, 170, 112964. Cit: 0 (source: Scopus), IF: 16.799 (source: WoS)

3) Pustina, L., Serafini, J., & Biral, F. (2022). Robustness of an Economic Nonlinear model predictive control for wind turbines under changing environmental and wear conditions. *IEEE Control Systems Letters*, In press. Cit: 0 (source: Scopus), IF: 2.766 (source: Scopus, WoS not available)

- 4) Pustina, L., Lugni, C., Bernardini, G., Serafini, J., & Gennaretti, M. (2020). Control of power generated by a floating offshore wind turbine perturbed by sea waves. *Renewable and Sustainable Energy Reviews*, 132, 109984. Cit: 16 (source: Scopus), IF: 14.982 (source: WoS)

- 5) Tomasicchio, G. R., Vicinanza, D., Belloli, M., Lugni, C., Latham, J. P., Iglesias, J. G., Jensen, B., Vire, A., Monbaliu, J., Taruffi, F., Pustina, L., Leone, E., Russo, S., Francone, A., Fontanella, A., Carlo, S., Muggiasca, S., Decorte, G., Rivera-Arreba, I., Ferrante, V., Battistella, T., Garcia, R. G., Díaz, A. M., Elsässer, B., Via-Estrem, L., Xiang, J., Andersen, M. T., Kofoed, J. P., Kramer, M. B., Musci, E. & Lusito, L. (2020). Physical model tests on spar buoy for offshore floating wind energy conversion. *Italian Journal of Engineering Geology and Environment*, 20(1). Cit: 5 (source: Scopus), IF: 0.667 (source: Scopus, WoS not available)

- 6) Pustina, L., Cavallaro, R., & Bernardini, G. (2019). NERONE: An open-source based tool for aerodynamic transonic optimization of nonplanar wings. *Aerotecnica Missili & Spazio*, 98(1), 85-104. Cit: 5 (source: Google Scholar), IF: not available

- 7) Pustina, L., Pasquali, C., Serafini, J., Lugni, C., & Gennaretti, M. (2021, June). Individual Blade Pitch Control for Alleviation of Vibratory Loads on Floating Offshore Wind Turbines. In *International Conference on Offshore Mechanics and Arctic Engineering* (Vol. 85192, p. V009T09A032). American Society of Mechanical Engineers. Cit: 2 (source: Scopus), IF: not available

- 8) Pustina, L., Biral, F., & Serafini, J. (2022, May). A novel Nonlinear Model Predictive Controller for Power Maximization on Floating Offshore Wind Turbines. In *Journal of Physics: Conference Series* (Vol. 2265, No. 4, p. 042002). IOP Publishing. Cit: 0 (source: Scopus), IF: not available

- 9) Pustina, L., Lugni, C., Bernardini, G., Serafini, J., Gennaretti, M. (2019). Control of Floating Offshore Wind Turbine Response to Sea Waves. *Conference on Sustainable Development of Energy, water and Environment Systems*. Cit: 0 (source: Google Scholar), IF: not available

- 10) Pustina, L. (2022). Innovative Control Systems for Floating Offshore Wind Turbines. *PhD Thesis*.

Luogo e data: Roma, 04/01/2023

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