

University Academic Curriculum Vitae

Personal information Lorenzo Pagliari

Education since leaving school

- 2019, Bachelor's degree in industrial mechanical engineering, Free University of Bozen/Bolzano.
- 2022, Master's degree in industrial mechanical engineering, Free University of Bozen/Bolzano.
- 2022 - ongoing, PhD in Advanced Systems Engineering, Free University of Bozen/Bolzano.

Present appointment

- Teaching assistant for the course "Thermomechanical Measurements", a.a 2024/2025.
- Start of appointment: 2024.
- National context.
- Free University of Bozen/Bolzano.
- Preparation of lab activities and guidance of students during such activities.

Professional experience

From / to	Job title	Name of academic Institution	Academic level	responsibilities
Sett. 2022 – Ott. 2022	Highschool professor	Liceo Scientifico Torricelli, Bolzano	Highschool	Teaching the subjects Mathematics and Physics
Ott. 2022 - ongoing	Highschool professor	Istituto Tecnico Tecnologico Rainerum, Bolzano	Highschool	Teaching the subject "Disegno e progettazione di impianti energetici"

Experience in academic teaching

- Teaching assistant for the course "Thermomechanical Measurements", a.a 2023/2024. Free University of Bozen/Bolzano. Post-graduate level.

Other academic responsibilities

- 3rd International Symposium on Industrial Engineering and Automation (ISIEA 2024), organizing committee.
- Co-supervisor of Bachelor Thesis.

Research and scholarships

Date granted	Award Holder(s)	Funding Body	Title
Nov. 2022- Nov 2025	Lorenzo Pagliari	Free University of Bozen/Bolzano	PhD scholarship

Publications

- *Pagliari, L., Nezzi, C., Fraccaroli, L., Concli, F. (2022). Development of a FEM Model for the Digital Twin Application and the Monitoring of Cor-Ten Road Barriers in the Autonomous Province of Bozen/Bolzano. In: Matt, D.T., Vidoni, R., Rauch, E., Dallasega, P. (eds) Managing and Implementing the Digital*

Transformation. ISIEA 2022. Lecture Notes in Networks and Systems, vol 525. Springer, Cham. https://doi.org/10.1007/978-3-031-14317-5_12L.

- *Pagliari, L., Nezzi, C., Vidoni, R., Concli, F. (2023). An innovative architecture of a three-speed automatic internal shifting hub for regular commuting bicycles: Kinematic analysis and preliminary sizing, Engineering Science and Technology, an International Journal, 48, 101587, <https://doi.org/10.1016/j.jestch.2023.101587>.*
- *Fraccaroli, L., Pagliari, L., Concli, F. (2023). A Combined Analytical-Numerical Approach to Evaluate the Efficiency of Cycloidal Speed Reducers. In: Borgianni, Y., Matt, D.T., Molinaro, M., Orzes, G. (eds) Towards a Smart, Resilient and Sustainable Industry. ISIEA 2023. Lecture Notes in Networks and Systems, vol 745. Springer, Cham. https://doi.org/10.1007/978-3-031-38274-1_49L.*
- *Pagliari, L., Fraccaroli, L., Concli, F. (2023). Numerical Analysis of the Impact of Shot Peening on the Tooth Root Strength of AISi10Mg Gears Using Critical Plane Multiaxial Fatigue Criteria. In: Borgianni, Y., Matt, D.T., Molinaro, M., Orzes, G. (eds) Towards a Smart, Resilient and Sustainable Industry. ISIEA 2023. Lecture Notes in Networks and Systems, vol 745. Springer, Cham. https://doi.org/10.1007/978-3-031-38274-1_56.*
- *Pagliari, L., Fraccaroli, L., Concli, F. (Accepted and presented conference paper, expected publication in August 2024). Comparison of low-cycle fatigue criteria for the life prediction of AISI 316L.*
- *Silani, M., Pagliari, L., Concli, F. (Accepted and presented conference paper, expected publication in August 2024). Molecular dynamics simulation of fatigue crack propagation in single crystal Aluminum under cyclic loading.*
- *Maccioni, L., Pagliari, L., Concli, F. (Accepted and presented conference paper, expected publication in August 2024). CFD insights into gear jet lubrication: exploring objectives, challenges, and methodologies through a literature review*

Participation to conferences

- 1st International Symposium on Industrial Engineering and Automation (ISIEA 2023), author.
- 2nd International Symposium on Industrial Engineering and Automation (ISIEA 2023), author, speaker.
- 3rd International Symposium on Industrial Engineering and Automation (ISIEA 2024), author, speaker.

Statement of interest

Given my past experience with a teaching assistant position for the same type of course and given my past and ongoing experience as a high-school teacher, I aim at providing students of the course "Thermomechanical measurements" the best possible preparation. The lab activities that I will organize will help them at gaining insights into the topics that they faced during lecture and at putting into practice the notions they acquired

Language competence

- English, proficiency level, C2
- Spanish, B2
- German, B1