Mattia Andreoli

Date of Birth: January 13, 2000

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EDUCATION

PhD Structural Dynamics at NTNU

04.2025 - 04.2028

Numerical estimation of dynamic amplification factor (DAF) for road bridges. Under the supervision of Daniel Cantero and Øle Oiseth. Part of the concrete research group in the KT department at NTNU.

Master of Mechanical Engineering at PoliMi

02.2023 - 12.2024

Advanced Mechanical Design track

- Average: 110/110
- Thesis: A PINN framework for the solution of forward elastodynamic problems
 - focus on mitigating PINNs' failure modes
 - proposal of a custom architecture
 - evaluation of PINNs' performance in absence of labelled data

Focus:

- Betriebsfestigkeit (Operational reliability)
 - Bruchmechanik (Fracture mechanics)
- MBSF
- AI and ML methods
- FEM simulations
 - Abagus + Fortran subroutines
- Modal analysis

Bachelor of Mechanical Engineering at PoliMi

09.2019 - 02.2023

- Average: 100/110
- Thesis: Design from scratch of an electrical bicycle

High School at Liceo Scientifico Lussana

09.2014 - 07.2018

- Average: 100/100

CERTIFICATES

FCE B2: 182/190 (C1 Level)

08.2018

German B2.1: 1.0 (Excellent)

03.2024

EXPERIENCES

Erasmus period at TU Berlin

10.2023-10.2024

INTERESTS

Bridges, civil structures, airplanes, structural mechanics, interaction of fluid with structures, diagnostics, vibrations, AI, fracture mechanics, dynamics, programming

Music, cars, bicycles (MTB and BMX), Germany, literature, comics

Programming Skills

LaTeX

Matlab

Python

Pytorch

Engineering programs

3DExperience

Catia V5

Magic Systems of Systems Architect

Abaqus

Languages

Italian (Native tongue)

English (B2 Proficiency)

German (B2 Proficiency)