Andrea Brugnoli

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Academic Positions

University of Twente **Enschede**
Post-Doctoral researcher *November 2020-November 2022*
Numerical methods for coupled port-Hamiltonian fluid-structure dynamics
ERC Advanced grant. Principal investigator: Stefano Stramigioli

Education

ISAE-Supaero **Toulouse**
PhD in Automatic Control *2017-2020*
A port-Hamiltonian formulation of flexible structures: modelling and symplectic finite element discretization.
Supervisors: Daniel Alazard, Valérie Pommier-Budinger and Denis Matignon.

Université Paris Saclay/ Supélec **Paris/Toulouse**
Research Master in automatics and image processing *2016–2017*
Courses: inverse problem, advanced dynamics of flexible structures, parameter estimation.

ISAE-Supaero **Toulouse**
Double degree in aerospace and astronautical engineering *2015–2017*
Specialisation in applied mathematics and advanced automatics: multidisciplinary optimisation, high performance computing, control of flexible structures.

Politecnico di Milano **Milan**
Master in space engineering, 110/110 cum laude *2014–2017*
Courses: orbital mechanics, structural dynamics and control, thermochemical propulsion.

Politecnico di Milano **Milan**
Mechanical Engineering Degree, 110/110 cum laude *2011–2014*
Courses: finite element method, mechanical vibrations, numerical methods for engineering.

Experiences

Institut CIFAR **Toronto, Canada**
Summer school in Artificial Intelligence and Reinforcement Learning *July 2021*

ITA-Instituto Tecnológico de Aeronáutica **São José dos Campos**
Visiting researcher *January 2019, 4 months*
Collaboration with Flavio Cardoso-Riberio on numerical methods for port-Hamiltonian systems.

CNES-Centre national des études spatiales **Toulouse**
Internship *2017, 6 months*
Analysis of dismissed satellites subjected to solar pressure to identify stable and periodic pointing configurations.

Politecnico di Milano in partnership with Danieli S.p.A **Milan**
Bachelor project *2014, 3 months*
Dynamics of a forging manipulator. Project selected for the final presentation at Danieli.

Languages

English: fluent

French: fluent

Spanish: intermediate

Portuguese: intermediate

Italian: native speaker

Computer skills

Softwares and platforms: Simulink, Abaqus, Inventor, Solid Works, Labview

Languages: Python (especially FEM librairies: FEniCS and Firedrake), Matlab, Java, C, LaTeX

OS: Linux environment (Fedora, Ubuntu)

Awards

Fondation ISAE-SUPAERO
PHD Thesis Award *2021*

Politecnico di Milano
Tuition fee waiver for academic merit. *2011-2017*

References

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