PAUL DECHAMPS

Aerospace Engineer

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🐙 Paul-Dech
🌐 www.uliege.be/cms/c_9054334/fr/repertoire?uid=u238419

EXPERIENCE

Teaching assistant

University of Liege

📅 2022 – Ongoing 📍 Liège, BELGIUM

Main topics:
- Aerodynamics (master)
- Conceptual and preliminary aircraft design (master)
- Aerothermodynamics of high speed flows (master)

Additional topics:
- Spacecraft control, Algebra, Stochastic processes

Researcher

Embraer S.A.

📅 2022 – 2024 📍 Liège, BELGIUM

Aeroelastic Tayloring Enabled Design project

Collaboration with the aeroelastic team of Embraer S.A. on the development of new methodologies for aircraft design optimization.

- Flutter prediction in transonic configurations
- Aerodynamic modeling using panel and field methods
- Multidisciplinary optimization

EDUCATION

Ph.D. in Aerospace Engineering

University of Liège

📅 March 2022 – Ongoing

"Three-dimensional adjoint interactive boundary layer methodology for multidisciplinary aircraft design optimization"

Development of an aerodynamic model based on viscous-inviscid interaction designed for optimization of lifting surfaces during preliminary aircraft design

M.Sc. in Aerospace Engineering

University of Liège

📅 2022

Master thesis: **Improvement of the viscous-inviscid interaction method implemented in DARTFLO.** - *magna cum laude*

ABOUT ME

Enterprising Aerospace Engineer with advanced expertise in the fields of transonic aerodynamics, aeroelasticity and optimization of multivariable constrained problems. My personal interests are mostly focused on new technologies and every day tasks optimization and automatization. I love to push my limits in running trails.

LANGUAGES

French
Native speaker

English
Full professional proficiency

Dutch
Begginer

STRENGTHS

</> C++   </> Python   Matlab

LaTeX latex   git   Linux

PUBLICATIONS

👥 Conference Proceedings

- A. Crovato, P. Dechamps, A. P. Prado, P. H. Cabral, V. Terrapon, and G. Dimitriadis, "Fast transonic corrections for panel methods using viscous-inviscid interaction," in *Proceedings of the 34th Congress of the International Council of the Aeronautical Sciences*, Florence, Italy: International Council of the Aeronautical Sciences, 2024. eprint: https://orbi.uliege.be/2268/321596.

- P. Dechamps, A. Crovato, G. Dimitriadis, and V. E. Terrapon, "Three-dimensional pseudo-unsteady viscous-inviscid interaction for wings in transonic flow," in *AIAA SCITECH 2024 Forum*, 2024, p. 1947.

- P. Dechamps, A. Bilocq, A. Crovato, G. Dimitriadis, and V. Terrapon, "Pseudo-unsteady, quasi-simultaneous, two-dimensional interactive boundary layer methodology for preliminary aircraft design," in *ACOMEN 2022*, 2022.

📄 Others

- A. Crovato and P. Dechamps, *Aeroelastic tailoring enabled design-second intermediate report phase i*, 2023.

- A. Crovato and P. Dechamps, *Aeroelastic tailoring enabled design-second intermediate report phase ii*, 2023.

- P. Dechamps et al., *Master thesis and internship [br]-master's thesis: Improvement of the viscous-inviscid interaction method implemented in dartflo [br]-integration internship*, Université de Liège, Liège, Belgique, 2022.