Anthony Bosco

anthony@abosco.be anbosco
+33695501552 https://www.abosco.be/

Postdoctoral Researcher
Cerfacs

Employment History

2025 – 2026 **Postdoctoral Researcher** Energy and Security team, Cerfacs, Toulouse

2024 – 2025 **Contractual Researcher** Laboratory of Applied Mathematics University of Pau & Inria Bordeaux

2021 – 2024 **PhD Candidate** Laboratory of Applied Mathematics University of Pau & Inria Bordeaux

2018 – 2019 **Teaching Assistant.** Faculty of Applied Sciences, University of Liège.

Education

2021 – 2024 **Ph.D. in Applied Mathematics**, Laboratory of applied mathematics, University of Pau & Cagire team, Inria Bordeaux, France.
Thesis title: *Development of robust high order methods for the simulation of compressible turbulent flows.* Supervisor: Vincent Perrier
Keywords: Discontinuous Galerkin methods – Numerical Analysis – Compressible flows – RANS equations – High Performance Computing

2017 – 2019 **Master of Science in Engineering Physics, *Major in fluid dynamics.*** (*magna cum laude*) – University of Liège, Belgium.
Thesis title: *Bayesian inference for the identification of model parameters in atmospheric entry problems*.

2014 – 2017 **Bachelor of Science in Engineering** (*cum laude*) – University of Liège, Belgium.
Major in physics, minor in mechanics.

2008 – 2014 **Certificat d'enseignement secondaire supérieur** – Athénée Royal d'Esneux, Belgium.

Research Publications

Journal Articles

1. **Anthony Bosco** and Vincent Perrier. "Discontinuous Galerkin methods for axisymmetric flows". In: *Computers & Fluids* 270 (2024), pp. 106–139.

Conference Proceedings

1. **Anthony Bosco**, Vincent Perrier, and Jonathan Jung. "Variational Formulation of Wall Boundary Conditions of RANS Models in a Discontinuous Galerkin Framework". In: *CFC 2023 - 22nd Computational Fluids Conference*. IACM. Cannes, France, Apr. 2023. URL: https://hal.science/hal-04095353.

2. **Anthony Bosco** and Vincent Perrier. "Discontinuous Galerkin method for the simulation of axisymmetric compressible flows". In: *HONOM 2022 - European Workshop on High order nonlinear numerical methods for evolutionary PDEs: Theory and Applications*. Braga, Portugal, Apr. 2022. URL: https://inria.hal.science/hal-03893160.

3. **Anthony Bosco** and Vincent Perrier. "Méthodes numérique d'ordre élevé pour la turbulence." In: *Journée du LRC Anabase avec MARGAUx*. Talence, France, Dec. 2022. URL: https://inria.hal.science/hal-03893271.

4. **Anthony Bosco**, Vincent Perrier, and Jonathan Jung. "Discontinuous Galerkin method for the computation of axisymmetric flows". In: *ECCOMAS 2022 - 8th European Congress on Computational Methods in Applied Sciences and Engineering*. Oslo, Norway, June 2022. URL: https://inria.hal.science/hal-03893243.

Technical Reports

1. **Anthony Bosco** and Vincent Perrier. *Discontinuous Galerkin methods for axisymmetric flows: extended version*. Tech. rep. RR-9524. INRIA, Oct. 2023, p. 49. URL: https://inria.hal.science/hal-04236220.

Master Thesis

1. **Anthony Bosco**. *Bayesian inference for the identification of model parameters in atmospheric entry problems*. MSc thesis. Liège, Belgium, 2019. URL: https://matheo.uliege.be/handle/2268.2/7860.

Teaching

2022– 2023 — **Calcul Scientifique** – University of Pau.
Analyse numérique pour les problèmes vectoriels – University of Pau.

2021– 2022 — **Calcul Scientifique** – University of Pau.
Statistiques Descriptives – University of Pau.

2020 – 2021 — **Statistiques Descriptives** – University of Pau.

2018 – 2019 — **Applied Mathematics** – University of Liège.

Skills

Languages	French (native), English (C1)
Programming Language	C/C++, Julia, Python, MATLAB, LaTeX
Softwares	MATLAB/Octave, OpenFOAM, Siemens NX, COMSOL, MS Office
Operating systems	Linux, macOS, Windows
Misc.	Git, MPI, OpenMP, GDB, Valgrind

References

Vincent Perrier
Research Director
Inria Bordeaux Sud-Ouest,
Laboratoire de Mathématiques et de leurs applications
Bâtiment IPRA
Université de Pau et des Pays de l'Adour
Avenue de l'Université
64013 Pau Cedex
vincent.perrier@inria.fr

Jonathan Jung
Lecturer
University of Pau,
Laboratoire de Mathématiques et de leurs applications
Bâtiment IPRA
Université de Pau et des Pays de l'Adour
Avenue de l'Université
64013 Pau Cedex
jonathan.jung@univ-pau.fr