Anthony Bosco

MSc. in Engineering Physics

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Having graduated in September 2019 with a Master of Science in Engineering Physics, I am looking for a position in areas related to applied mathematics and/or computational physics (in particular in computational fluid dynamics).

Education

University of Liège   *Liège, Belgium*
Master of Science in Engineering Physics (*magna cum laude*)   *2017-2019*

- **Master's thesis: Bayesian inference for the identification of model parameters in atmospheric entry problems (supervisors: Prof. Maarten Arnst and Joffrey Coheur)**
  Implementation of gradient-based Markov Chain Monte Carlo methods to solve Bayesian inference problems applied to the identification of parameters in a system of non-linear ordinary differential equations appearing in atmospheric entry problems.
- **MATH 0471: Multiphysics integrated computational project**
  Implementation in C/C++ of a parallel (MPI/OpenMP) coupled thermal and electromagnetic solver applied to microwave heating in a cavity. Computationally expensive simulations were performed on the NIC4 supercomputer from the University of Liège.
- **Research focus in Fluid Dynamics**
  Relevant coursework: *Modelling with Partial Differential Equations; Computational Fluid Dynamics; High Performance Scientific Computing; Turbulent Flows; Geophysical Fluid Dynamics; Irreversibility, instabilities and chaos; Microfluidics; Stochastic modelling; Perturbation Methods; Structural Optimisation; Continuum Mechanics; Linear Control Systems*

University of Liège   *Liège, Belgium*
Bachelor of Science in Engineering (*cum laude*)   *2014-2017*

- **Major in Physics** — *Finite Element Method, Fluid Mechanics, Electromagnetism, Quantum Mechanics, Microtechnology*
- **Minor in Mechanics** — *Dynamical systems, Thermodynamics, Heat Transfer, Solid Mechanics*

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

Experience

University of Liège   *Liège, Belgium*
Teaching assistant for the class MATH 0504: Applied mathematics (Prof. Christophe Geuzaine and Prof. Benjamin Dewals)   *September 2018 - June 2019*

- Giving weekly exercise sessions on partial differential equations to a small class of third year bachelor student in Engineering.
- Participation in the organisation of question and answer sessions regarding the material of the course (theory and exercises).
- Participation in the writing of exercise notes for the class: picking relevant problems from reference books, providing a solution and writing it in notes available to the students following the class.

Skills

Programming languages	Python, C/C++, MATLAB, LaTeX
Softwares	MATLAB/Octave, OpenFOAM, Siemens NX, COMSOL, MS Office
Operating systems	Linux (Ubuntu, Fedora), macOS, Windows 10
Languages	French (native), English (C1)

Interests

High performance computing and computer hardware — Fluid dynamics — Artificial intelligence — Flight simulators — Music