



# CAMILLE SAINT-MARTIN

## Seeking Postdoctoral Position

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📅 28 years old  
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🏠 206 Chemin Des Télécabines  
Le Grand-Bornand (74450)  
🚗 Driving license

PhD graduate in Engineering Science with solid experience in modeling and programming. Driven by curiosity and problem-solving, I am ready to bring valuable insights to data-driven projects in my future job.

### WORK EXPERIENCE

PhD Researcher From October 2020 to June 2024  
[SYMME Laboratory, Université Savoie Mont Blanc Annecy-Le-Vieux](#)  
[Toward the optimization of nonlinear vibration energy harvesters' performance](#)

- Supervisors:** Ludovic Charleux, Adrien Morel and Émile Roux
- Numerical modeling of nonlinear vibrational systems
  - Defined a new performance metric for evaluating energy harvester efficiency
  - Developed GPU-accelerated HPC codes for simulating system dynamics
  - Optimized the performance of a bistable nonlinear vibration energy harvester

Master's Internship in Applied Mathematics From March 2020 to July 2020  
[Jean Kuntzmann Laboratory, Université Grenoble Alpes Saint-Martin-d'Hérès](#)  
[Perfectly Matched Layers \(PML\) for a Non-Hydrostatic Compressible Ocean Model](#)

- Supervisor:** Eric Blayo
- Modeled oceanic currents using a non-hydrostatic compressible flow model
  - Studied and compared boundary conditions using Perfectly Matched Layers (PML)
  - Applied PML to improve the numerical treatment of open boundary conditions in ocean simulations

### TEACHING AND MENTORING

Internship supervision – Cloé Léglise (4th year engineering student) From April 2023 to July 2023  
[Université Savoie Mont-Blanc Annecy-le-Vieux](#)  
[Numerical modeling of nonlinear oscillators for vibrational energy harvesting](#)

Development of a graphical interface in Julia for analyzing the dynamics of vibrational energy harvesters.

- Teaching Assistant From April 2021 to June 2023  
[Université Savoie Mont-Blanc Annecy-Le-Vieux](#)
- Numerical Methods (18h), 2nd year, PEIP
  - Applied Mathematics and Statistics (20h), 1st year, ECOG
  - Applied Mathematics (24.5h), 2nd year, ECOG
  - Probability and Statistics (18h), Master's level (5th year)
  - Numerical Tools for Engineers (24h), Bachelor's level (3rd year)

### EDUCATION

PhD in Engineering Science June 2024  
[Université Savoie Mont Blanc Annecy-le-Vieux](#)

Master's Degree in Numerical Modelling and Analysis 2020  
[Université de Montpellier Montpellier](#)

Bachelor's Degree in Mathematics 2018  
[Université de Montpellier Montpellier](#)

## PROFESSIONAL DEVELOPMENT COURSES

Programming and optimization on heterogeneous architectures.	2024
<b>HPC Gray Scott School Annecy-Le-Vieux (2 weeks)</b>	
<ul style="list-style-type: none"><li>• Optimisation of computations on different types of hardware (CPU, GPU)</li><li>• Generic optimisation methods applicable to all types of hardware</li></ul>	
Fundamentals of Accelerated Computing with CUDA Python	2022
<b>Nvidia online (1 day)</b>	

## KEY COMPETENCIES

- Strong adaptability to evolving research and innovation requirements in professional settings
- Skilled in applying research methods and tools aligned with innovation processes
- Proficient in acquiring, synthesizing, and analyzing cutting-edge scientific and technological data
- Curious and open-minded, with a continuous commitment to developing a high-level scientific culture
- Effective communication of scientific and technical work within international research communities

## LANGUAGES

- French**  
Native speaker
- English**  
C1 level – Strong written English; good verbal skills.
- Scientific publications and international conference presentations in English.

## COMPUTER SKILLS

- Python (advanced)**  
Full research workflow implemented in Python, including numerical modeling, symbolic computation, data analysis, and machine learning.  
**Libraries:** Numpy, SciPy, Matplotlib, SymPy, Pandas, Scikit-learn, Numba, Jupyter.
- Matlab (intermediate)**  
Used during Bachelor’s and Master’s projects; reviewed team code during PhD work.
- C, C++ (beginner)**  
Completed an online course MOOC and studied during a Master’s-level course.

## DEVELOPMENT AND INTEGRATION

- Latex (advanced)**  
Regular use for writing reports and academic papers.
- Linux (advanced)**  
Ubuntu, Mint, VM Linux, Bash.
- Git (intermediate)**  
Practical experience with version control in individual and team projects. Basic CI integration with Git hooks.
- Docker (intermediate)**  
Set up containerized workspace and built custom Docker images for API deployment.




## REFERENCES

- Ludovic Charleux**  
Associate Professor, SYMME Laboratory  
ludovic.charleux@univ-smb.fr
- Émile Roux**  
Associate Professor, SYMME Laboratory  
emile.roux@univ-smb.fr
- Adrien Morel**  
Associate Professor, SYMME Laboratory  
adrien.morel@univ-smb.fr

## INTERESTS

- Sports and hobbies**  
Tennis, hiking, nature enthusiast

## SOCIAL NETWORKS

-  camille\_saint-martin
-  @csaintmartin
-  @csaintmartin