

Corrie James

3rd Year PhD Student

Seeking a postdoctoral position in numerical methods, statistical learning, scientific computing, and data-aware modelling

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🌐 <https://corriejames.github.io/>

PhD

2023 – **UVSQ, Université de Paris-Saclay, Inria of Paris, LJLL SU (COMMEDIA)**, *PhD in Applied Mathematics*

Title *The Interaction Between Data and Modelling for Biomedical Applications*

Supervisors Muriel Boulakia (UVSQ, Université de Paris-Saclay), Damiano Lombardi (Inria of Paris, LJLL SU, COMMEDIA)

Topic: The impact of population data on inverse problems and data assimilation

International Scientific Talks:

- Math to Product (M2P) 2025, Valencia, Spain
- Computational and Mathematical Biomedical Engineering (CMBE2024), Arlington VA, USA

Publication: *Numerical Approximation of the Unique Continuation Problem Enriched by a Database for the Stokes Equations*, co-authored with Muriel Boulakia and Damiano Lombardi, 2025, ESAIM: M2AN, doi: 10.1051/m2an/2025024

Other activities:

- Teaching at UVSQ (2023-2025, 64 hours/year). Optimization TD/TP's for L3, Numerical Methods TP's for L2
- CEA/EDF/Inria Summer School 2025: *Solving partial differential equations in fields physics faster with physics-based machine learning*

Education

2021–2023 **Master's**, Sorbonne Université, Paris, France, *Mathematical Modelling*

Laureate of the PGSM scholarship from the Fondation Sciences Mathématiques de Paris in M2

2018–2021 **Licence**, Sorbonne Université, Paris, France, *Mathematics and Applications*

Professional Experience

2023 **Master's Internship**, Inria of Paris (COMMEDIA), Paris, France

Solving Unique Continuation Problems for Biomedical Applications, Supervised by Muriel Boulakia and Damiano Lombardi, 5 months

Summer 2022 **Internship**, Laboratoire de biologie computationnelle et quantitative, Paris, France

Modelling and Numerical Simulations of Adipocyte Cells. Supervised by Chloé Audebert, assistant professor at Sorbonne Université, 2 months.

Languages and Computing Skills

Language English (maternal language), French (fluent)

Computing Python, Jax, Tensorflow, Pytorch, Scikit Learn, FreeFem++, Paraview, Monolix, R