

ELISE GROSJEAN

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EDUCATION

PhD in Applied Mathematics under the supervision of Yvon Maday at Jacques-Louis Lions laboratory (LJLL) Subject: Non-Intrusive Reduced Basis methods (NIRB)	<i>November 2018 - Present</i>
Master in the mathematics of modeling at Sorbonne-Universite	<i>2015 - 2018</i>
Engineer school in Applied Mathematics and Computer Science at Polytech-Paris UPMC	<i>2015 - 2018</i>
Bachelor in Fundamental Mathematics (Sorbonne-Universite)	<i>2012 - 2015</i>

PROFESSIONAL

Implementation of a Non-Intrusive Reduced Basis module in an open-source library Contributed to the online library with EDF and other partners on NIRB methods in Python and C++.	<i>2018-2021</i>
C++ Finite Elements Method implementation Implemented the Finite Elements method to solve 2D Navier-Stokes equation in a channel.	<i>2018</i>
Internship at Jacques-Louis Lions laboratory Study of the velocity stability threshold in a steam generator of a nuclear power plant by an algebraic method and an ALE finite element method (Freefem, Matlab)	<i>March - August 2018</i>
Internship at the climate research institute IK-IFU at Garmisch-Partenkirchen (Germany) Dynamic global vegetation model (DGVM) to improve crops and the quality of soils in East Africa (R, LPJ-GUESS)	<i>June - August 2017</i>

TEACHING

Tutor in Numerical analysis at ENSAE (L'École nationale de la statistique et de l'administration économique Paris)	<i>2020</i>
Tutor for bachelor (3rd year) at UPMC in Numerical approximation, in Python, and in Numerical methods for EDO	<i>2018 - 2020</i>
Tutor in Finite Elements Method , Master (1st year) at UPMC	<i>2018 - 2021</i>

SKILLS

Langage French (Mother tongue), English (Fluent, TOEIC 900), German (B2), Hindi (Notions)
Computer skills C/C++, Bash, Python, Matlab, Git, Scilab, MPI, OpenMP, FreeFem, Cuda (C), Paraview, GMSH, Salome, Code Saturne.

ACADEMIC ACHIEVEMENTS

With Yvon Maday, Error estimate of the Non-Intrusive Reduced Basis method with finite volume schemes (m2an 10.1051/m2an/2021044)	<i>07/2021</i>
Poster Session - application of reduced basis methods to wind farms Recent talks:	<i>11/2019</i>
• Model Order Reduction Summer School MORSS2020	<i>09/2020</i>
• GTT of LJLL	<i>10/2020</i>
• Presentation of the two-grids method with EDF	<i>10/2020</i>
• CANUM2020 - contributions	<i>12/2020</i>
• Workshop Mathematics of High-Performance Computing, Prague	<i>09/2021</i>