

BAPTISTE KERLEGUER | RESUME

- » **Date of Birth** august 26, 1995
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»»» Experience

2022 -	Researcher- Statistics and uncertainty quantification	CEA
	» Research in uncertainty quantification, statistics and images » Application for the military direction	
2019 - 2022	PhD Student	Ecole Polytechnique
	» Under the supervision of Josselin Garnier and Claire Cannamela » Uncertainty quantification	
2015 - 2019	Student Normalien	ENS Paris-Saclay
	» Master MVA » Agregation SII option Informatique, rank 3	

»»» Publications

2024	Bayesian Calibration in a multi-output transposition context <i>In review</i>	G Defaux, C Durantin, J Garnier, B Kerleguer, G Perrin, C Sire
2024	A Bayesian neural network approach to multi-fidelity surrogate modeling, <i>International Journal for Uncertainty Quantification</i> 14 (1)	B Kerleguer, C Cannamela, J Garnier
2023	Multifidelity Surrogate Modeling for Time-Series Outputs, <i>SIAM/ASA Journal on Uncertainty Quantification</i> 11 (2), 514-539	B Kerleguer
2022	Multi-fidelity surrogate modeling adapted to functional outputs for uncertainty quantification of complex models, <i>Institut Polytechnique de Paris PhD thesis</i>	B Kerleguer

»»» Talks

November 2024	<i>Multi-fidelity surrogate modeling for material science</i>	CEA Workshop ML en science des matériaux
June 2024	<i>Benchmark of integrated solutions for uncertainty quantification</i>	OpenTurns' User Day
May 2024	<i>Régression par processus gaussien basée sur la réduction de dimensions pour des séries temporelles en sortie</i>	JDS de la SFdS
March 2024	<i>A Bayesian neural network approach to multi-fidelity surrogate modeling</i>	UQSay #70
February 2024	<i>A Bayesian neural network approach to multi-fidelity surrogate modeling</i>	SIAM UQ Minisymposium
July 2023	<i>Prise en compte de contraintes physiques dans la métamodélisation pour la simulation numérique</i>	JDS de la SFdS
March 2023	<i>Multi-fidelity surrogate modeling for uncertainty quantification</i>	ONERA remote seminar on uncertainties quantification
June 2022	<i>Méta-modélisation multi-fidélité par processus Gaussien en utilisant une base d'ondelettes</i>	JDS de la SFdS
April 2022	<i>Multi-Fidelity Gaussian Process Regression for High-Dimensional Code Outputs Using Wavelet Transform Covariance</i>	SIAM UQ contributed talk
Novembre 2021	<i>Multi-Fidelity Gaussian Process Regression for High-Dimensional Code Outputs Using Wavelet Transform Covariance</i>	MIA Paris seminar
September 2021	<i>Multi-fidelity surrogate model combining Gaussian process regression and Bayesian neural network</i>	ETICS PhD talk
June 2021	<i>Multi-Fidelity surrogate modeling for time-series outputs.</i>	UNCECOMP

June 2021	<i>Meta-modélisation multi-fidélité combinant processus Gaussiens et réseau de neurones bayésien and Métamodélisation multi-fidélité avec des séries-temporelles en sortie</i>	JDS de la SFdS
July 2021	<i>Multi-fidelity approaches with Claire Cannamela</i>	CEA-EDF-INRIA School
September 2020	<i>Multi-fidelity modeling for time-series output</i>	ETICS PhD talk

»»» Teaching

2022 -	Training coordinator and teacher	ISENDé
	<ul style="list-style-type: none"> » Uncertainty quantification in one week » Machine Learning in one week 	
2019-2022	Lecturer	Ecole Polytechnique
	<ul style="list-style-type: none"> » Algorithms for Discrete Mathematics, Bachelor of science second year » Numerical Methods for ODEs 	

»»» Supervising

2023-2024	Post-doc co-supervising : Charlie Sire	Chaire CIROQUO
	<ul style="list-style-type: none"> » Bayesian Calibration » With Josselin Garnier 	
2024-	PhD co-supervising : Niels Baillie	Ecole Polytechnique
	<ul style="list-style-type: none"> » Multi-fidelity surrogate modeling » With Cyril Feau and Josselin Garnier 	
2025-	PhD co-supervising : Davide Piccinelli	Aix-Marseille University
	<ul style="list-style-type: none"> » Atomic physics and thermodynamics » With Mariya Romanova, Julien Tranchida and Emeric Bourasseau 	

»»» Other activities

» Conference	President of the scientific commity of the CJC-MA 2021
» Seminar	Organiser of the mathematics PhD seminar of Polytechnique
» Chair	Coordinator of the CIROQUO research chair for the CEA since 2022