Curriculum Vitae

Carletti Lorenzo

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Born 3 December 2000

Professional experiences

Université libre de Bruxelles, Mathematics Department

September 2022 - — Full time

PhD. Student at the EDP/Analysis group with a FNRS-FRIA grant, with Bruno Premoselli.
Thesis title : Asymptotic analysis of nonlinear critical polyharmonic equations.

Université libre de Bruxelles

December - June 2022 — 2h/week

Student assistant teacher in Mathematics for the course Mathf102 : Linear Algebra and Geometry

Université libre de Bruxelles

September 2019 - December 2022 — 4h/week

Guidance teacher in Mathematics for first-year students of the Sciences Faculty.

Université libre de Bruxelles

September - December 2020 — Part time

Student research assistant for Prof. G. Aldashev at ECARES research center, Solvay School of Economics and Management.

Education

Université libre de Bruxelles - Master in Mathematics, research focus

June 2022

End of the cycle, obtaining the Master's degree with the highest distinction. Title of the Thesis : Asymptotic analysis of critical conformal equations of fourth order.

Université libre de Bruxelles - Bachelor in Mathematics

June 2020

End of the cycle, obtaining the bachelor's degree with the highest distinction.

Université libre de Bruxelles - 1st Block in Computer Science

June 2020

End of 1st Block for the bachelor in computer science.

Athénée Robert Catteau - Secondary school degree

June 2017

Obtaining the secondary school diploma (CESS), Mathematics-Science option with the highest distinction (valedictorian)

Awards

Ruth & Joe Gani award - Université libre de Bruxelles

June 2020

Rewarding a student for its grades in statistics and probability.

Publications and preprints

Optimal Sobolev inequalities of high order with L^2-remainder
L. C. & F. Robert - Preprint ArXiv 2506.17028, 2025

Attaining the optimal constant for higher-order Sobolev inequalities on manifolds via asymptotic analysis
L. C. - *J. London Math. Soc., Vol. 111, e70170, 2025*

The Green's function of polyharmonic operators with diverging coefficients : Construction and sharp asymptotics
L. C. - *Journal of Differential Equations, Vol. 419, 370-417, 2025*

Talks and seminars

Winter School 'PDEs in Geometry and Analysis at ICMS - Edinburgh, UK
January 2026

Workshop ARC "PDEs in interactions" at ULB - Spa, Belgium
December 2025

Seminario Problemi Differenziali Non Lineari at Università di Roma la Sapienza - Roma, Italy
November 2025

Mini-courses in Mathematical Analysis at Università degli studi di Padova - Padova, Italy
July 2025

SPP@ULB seminar at ULB - Bruxelles, Belgium
November 2024

Nonlinear and geometric analysis in Nancy at IECL - Nancy, France
November 2024

BMS PhD day at UAntwerp - Antwerp, Belgium
May 2024

Young Researchers in PDEs at ICMAT - Madrid, Spain
Poster, September 2023

Research stays

Università di Roma la Sapienza, Italy - host : Luca Martinazzi
September-December 2025

IECL Nancy, France - host : Frédéric Robert
March 2025

Teaching

Introduction to Partial Differential Equations - MathF314
Fall 2023 - 2025,
16h exercice classes, 3nd year bachelor students in Mathematics and Physics

Differential calculus and integration II - MathF201
Fall 2022, Spring 2022 - 2026
30h exercice classes, 2nd year bachelor students in Mathematics and Physics

Other

Math.en.Jeans
2023 - 2026
Participation as researcher, aimed at popularizing the research in mathematics to high-school students

Representative of the scientific staff in the Faculty Council
2023 - 2025
Faculty of Sciences, ULB

Languages

French & Italian	Bilingual
English	Oral & written fluency
Dutch, Spanish & Portuguese	Oral understanding