

# Lorenzo Pompili

## Curriculum vitae

### Personal data

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### Education

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Oct. 2020 (exp.) March 2025	<i>PhD student in Mathematical Analysis</i> , University of Bonn Thesis: “ <i>On the Bäcklund transform and the stability of the line soliton of the KP-II equation on the plane</i> ” Advisor: Prof. Dr. Herbert Koch
Sep. 2018 Sep. 2020	<i>Master’s Degree in Mathematics</i> , Sapienza University of Rome Final grade: 110/110 cum laude      Average of marks: 29,57/30 <u>Thesis: “<i>A class of Infinite Energy Solutions to the Supercritical NLS</i>”</u> Advisor: Prof. Piero D’Ancona
Sep. 2015 Sep. 2018	<i>Bachelor’s Degree in Mathematics</i> , Sapienza University of Rome Final grade: 110/110 cum laude      Average of marks: 29,72/30 Advisor: Prof. Piero D’Ancona

### Publications and preprints

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1. L. Pompili. *On the Bäcklund transform and the stability of line soliton of the KP-II equation on  $\mathbb{R}^2$* . Preprint: [arxiv:2412.12530](https://arxiv.org/abs/2412.12530), 2024.

### Invited talks

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- RSME’s *7th Congress of Young Researchers*, Bilbao, Spain, January 2025 (upcoming)
  - NPDE seminar, *KIT*, Karlsruhe, Germany, April 2024
  - Analysis and PDE seminar, *Hiroshima University*, Higashi-Hiroshima, Japan, June 2023

#### Other talks

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- Graduate seminar on Advanced topics in Analysis and PDEs, *University of Bonn*, July 2024
  - Graduate seminar on Advanced topics in Analysis and PDEs, *University of Bonn*, April 2023
  - Master seminar, *University of Milano-Bicocca*, March 2022

### Research trips

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04 June – 12 July 2023	Visit at Hiroshima University (Higashi-Hiroshima, Japan)  Funded by: <i>Global Math Exchange Program</i> , BIGS mathematics Host: Prof. Tetsu Mizumachi
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### Scholarships, Funding and Awards

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- *Oberwolfach Leibniz Graduate Students grant*, June 2022
  - *DAAD scholarship “Graduate School Scholarship Programme, 2020”*, 2020-2023
  - *Excellence programme – Master’s degree in Mathematics*, Sapienza University of Rome, 2020
  - *Excellence programme – Bachelor’s degree in Mathematics*, Sapienza University of Rome, 2018

### Academic Activities

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S.S. 2024	Teaching assistant, Bachelor seminar “ <i>Dynamics of the logistic map</i> ”, University of Bonn
W.S. 2023-2024	Tutor, Bachelor/Master course “ <i>PDEs and functional analysis</i> ”, University of Bonn
W.S. 2022-2023	Teaching assistant, Bachelor seminar “ <i>S2B2 – Partial Differential Equations</i> ”, University of Bonn

W.S. 2021-2022	Teaching assistant, Graduate seminar “ <i>Evolution equations in fluid dynamics</i> ”, University of Bonn
S.S. 2020	Tutor, Bachelor courses: <i>Analysis I</i> and <i>Geometry I</i> , Sapienza University of Rome

## Conferences and Schools

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- *RSME's 7th Congress of Young Researchers*, Bilbao, Spain, January 2025
- Arbeitsgemeinschaft (Working Group): *Quantum Signal Processing and Nonlinear Fourier Analysis*, MFO, Oberwolfach, 6-11 Oct. 2024
- Summer school *on Harmonic Analysis and PDEs: Strichartz and resolvent estimates*, Bilbao, 1-5 July 2024
- Spring school: *Spectral Theory, Fourier Analysis and PDEs*, Bilbao, 27-31 May 2024
- Workshop: *Harmonic Analysis and Differential Equations (Hade)*, Bilbao, 05 - 08 Sep. 2023
- Workshop: *Harmonic Analysis and Partial Differential Equations*, Bonn, 29 May - 02 June 2023
- Workshop: *Workshop on Analysis of PDEs in Karlsruhe*, KIT, Karlsruhe, 26 - 31 Mar. 2023
- Seminar: *Operator-Adapted Spaces in Harmonic Analysis and PDEs*, MFO, Oberwolfach, 20 - 26 Nov. 2022
- Seminar: *Free boundary problems in fluid dynamics*, MFO, Oberwolfach, 23 - 29 Oct. 2022
- Summer School: *Geometric dispersive PDEs*, University Center Obergurgl, 25 - 30 Sep. 2022
- Summer School: *Geometric analysis and Nonlinear Partial Differential Equations*, Bonn, 08 - 12 Aug. 2022
- Summer School: *2nd IST Austria Summer School in Analysis and PDEs* Klosterneuburg, 25 - 29 June 2022
- Workshop: *Nonlinear Waves and Dispersive Equations*, MFO, Oberwolfach, 26 Giu. - 02 July 2022
- Research School: *Mathematical Advances in Geophysical Flows*, CIRM, Marseille Luminy, 03 - 08 Apr. 2022