

# CV - Marco Fraccaroli

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## Personal data

Date of birth: 26 July 1992  
Nationality: Italian

## Current position

### **Postdoctoral fellow**

BCAM - Basque Center for Applied Mathematics, July 2023 - June 2025  
Supervisors: Dr. Pedro Caro and Dr. Luz Roncal

## Education

### **Ph.D. in Mathematics**

Universität Bonn, April 2017 - September 2022  
Supervisor: Prof. Dr. Christoph Thiele  
Thesis: *Topics in the  $L^p$  theory for outer measure spaces.*

### **Master's Degree in Mathematics**

Universität Bonn, October 2014 - March 2017  
Supervisor: Prof. Dr. Christoph Thiele  
Thesis: *On distributions with  $GL_2(\mathbb{R})$  dilation symmetry.*

### **Bachelor's Degree in Mathematics**

Università degli Studi di Padova, October 2011 - September 2014  
Supervisor: Prof. Dr. Roberto Monti  
Thesis (*in Italian*): *L'equazione di Yamabe: analisi e soluzioni attraverso il Metodo delle Sfere Mobili e il Principio del Massimo.*

## Scholarships and grants

### **SFB1060 position**

April 2017 - March 2022

### **BIGS Qualifying Scholarship**

October 2014 - September 2016

### **INdAM Scholarship for undergraduate studies in Mathematics**

October 2011 - September 2014

## Publications and preprints

Marco Fraccaroli, *Uniform maximal Fourier restriction for convex curves*  
 accepted for publication in *Annali di Matematica Pura ed Applicata* (2024).  
 DOI: 10.1007/s10231-023-01417-9

Marco Fraccaroli, *Duality for double iterated outer  $L^p$  spaces*  
 in *Studia Math.* **269**, no.3, 305–357 (2023).  
 DOI: 10.4064/sm210423-19-6

Marco Fraccaroli, *Duality for outer  $L^p_\mu(\ell^r)$  spaces and relation to tent spaces*  
 in *J. Fourier Anal. Appl.* **27**, 67 (2021).  
 DOI: 10.1007/s00041-021-09869-4

Marco Fraccaroli, Olli Saari and Christoph Thiele, *Uniform bounds for bilinear symbols with linear  $K$ -quasiconformally embedded singularity* (submitted).  
 arXiv preprint: <https://arxiv.org/abs/2402.11661>

Marco Fraccaroli, *Duality for outer  $L^{p,\infty}$  spaces* (submitted).  
 arXiv preprint: <https://arxiv.org/abs/2303.01336>

Marco Fraccaroli, Olli Saari and Christoph Thiele, *Phase space localizing operators* (submitted).  
 arXiv preprint: <https://arxiv.org/abs/2210.16164>

## Research talks

*Uniform Fourier restriction for convex curves,*  
 Università degli Studi di Genova, Genova, Italy  
 III Young Researchers Workshop in Harmonic Analysis, 11 January 2024

*The  $L^p$  theory for outer measure spaces,*  
 Chalmers Tekniska Högskola/Göteborgs Universitet, Göteborg, Sweden  
 Analysis & Probability Seminar at Chalmers/GU, 14 November 2023

*The time-frequency analysis of the uniform bounds for Hilbert forms,*  
 Universidade de Lisboa, Lisboa, Portugal  
 Lisbon Webinar in Analysis in Differential Equations, 12 October 2023

*The time-frequency analysis of the uniform bounds for Hilbert forms,*  
 Universidad del País Vasco/Euskal Herriko Unibertsitatea, Bilbao, Spain  
 Bilbao Analysis and PDE Seminar, 21 September 2023

*Uniform Fourier restriction for convex curves,*  
 Università degli Studi di Padova, Padova, Italy  
 Mini-courses in Mathematical Analysis, 20 June 2023

*Phase space projections,*  
 MFO, Oberwolfach, Germany  
 Workshop Real Analysis, Harmonic Analysis, and Applications, 6 July 2022

*Phase space projections,*  
 Università degli Studi di Padova, Padova, Italy  
 Mini-courses in Mathematical Analysis, 22 June 2022

*Phase space projections in time-frequency analysis,*  
 Università degli Studi di Genova, Genova, Italy  
 XLI Convegno di Analisi Armonica, 1 June 2022

*Duality for outer  $L^p$  spaces and relation to tent spaces,*  
 KIT, Karlsruhe, Germany  
 AG Funktionalanalysis Seminar, 21 December 2021

*Outer  $L^p$  spaces: Köthe duality, Minkowski inequality and more,*  
 International Prague seminar on function spaces, 9 December 2021

*Outer  $L^p$  spaces: Köthe duality, Minkowski inequality and more,*  
 Universität Bonn, Bonn, Germany  
 Graduate Seminar on Advanced Topics in PDE, 19 November 2021

*Outer  $L^p$  spaces, dyadic tents and dyadic trees,*  
 Università degli Studi di Padova, Padova, Italy  
 Workshop Complex and Harmonic Analysis in Padova, 30 October 2021

*Duality for outer  $L^p$  spaces,*  
 Bilbao Analysis and PDE Webinar, 21 October 2021

*Duality for outer  $L^p$  spaces,*  
 Harmonic Analysis e-Seminars, 19 May 2021

*Duality for outer  $L^p$  spaces and relation to tent spaces,*  
 Cornell University, Ithaca NY, United States of America  
 Analysis Seminar, 9 March 2020

## Seminars coorganized

### **Bilbao Analysis and PDE Seminar**

Seminar of the research group in Harmonic Analysis and Partial Differential Equations  
 BCAM and UPV/EHU, Summer Term 2024

### **Graduate seminar on Advanced topics in PDE**

Seminar of the research group in Harmonic Analysis and Partial Differential Equations  
 Universität Bonn, Summer Term 2021

## Other conferences attended

*Harmonic Analysis and Differential Equations: new questions and challenges,*  
 Bilbao, Spain, September 2023

*Harmonic Analysis, PDEs, and GMT in Bilbao,*  
 Bilbao, Spain, June 2023

*XLII Convegno Nazionale di Analisi Armonica,*  
 Milano, Italy, May 2023

*Real Analysis, Harmonic Analysis, and Applications,*  
 Oberwolfach, Germany, July 2020

*Harmonic Analysis and PDEs,*  
 Helsinki, Finland, June 2019

*Geometric Aspects of Harmonic Analysis: in honour of Fulvio Ricci,*  
Cortona, Italy, June 2018

*Analysis and Applications: in honor of Professor Elias M. Stein,*  
Wrocław, Poland, September 2017

*Real Analysis, Harmonic Analysis, and Applications,*  
Oberwolfach, Germany, July 2017

*Harmonic Analysis and its Interactions: In Honour of Tony Carbery,*  
Edinburgh, Scotland, July 2017

*10th International Conference on Harmonic Analysis and Partial Differential Equations,*  
El Escorial, Spain, June 2016

## Schools and workshops

*Fall School on Heat Flow, two-point inequalities, and beyond,*  
Online, October/November 2023

*Summer School on Analysis of multiple ergodic averages,*  
Kopp, Germany, September 2023

*Summer School on Brascamp-Lieb inequalities,*  
Kopp, Germany, October 2021

*Summer School on Sphere Packings and Optimal Configurations,*  
Kopp, Germany, October 2019

*Summer School on Unique Continuation and Inverse Problems,*  
Kopp, Germany, September 2018

*Summer School on Decoupling and Polynomial Methods in Analysis,*  
Kopp, Germany, September 2017

*Summer School on Paraproducts and Analysis of Rough Paths,*  
Kopp, Germany, September 2016

*Mini-courses in Mathematical Analysis,*  
Padova, Italy, June 2017, July 2018, June 2019, June 2021

## Referee

**Prof. Dr. Christoph Thiele**

*Ph.D. Supervisor*

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