

# Greta Coraglia

Logic PhD student @ University of Genova



## ACADEMIC INTERESTS

I am interested in logic, category theory, and theoretical computer science, with a focus on using categorical tools to describe deductive systems.

**SUPERVISOR**  
Prof. Pino Rosolini

### CURRENTLY STUDYING

Various flavours of type theory, identity types, how does the cut rule relate to comonads, clans and tribes that model stuff, sheaves for opinion dynamics.

## CONTACTS



coraglia@dima.unige.it



<https://etagreta.github.io/>



Via Dodecaneso, 35, Genova (IT)

## EDUCATION

**PhD in Mathematics**, present  
*University of Genova*

**MSc in Mathematics, *cum laude***, 2019  
*University of Milano*

"A categorical perspective on Heyting-valued sets", adv. Pino Rosolini and Silvio Ghilardi

**BSc in Mathematics**, 2017  
*University of Milano*

"Cantor-Bernstein and Hartogs, universes and strongly inaccessible cardinals", resp. Luca Barbieri Viale

## AWARDS & TRAVEL GRANTS

AILA's prize for best master's thesis in logic, 2019

Visit to TalTech, Tallinn, May 2022

Participation in:

- Adjoint School research week at Strathclyde, Glasgow, July 2022
- Logic and higher structures at CIRM, Marseille, March 2022
- SYCO 6, Leicester, December 2019

## RESEARCH

Project: *Fuzzy type theory for opinion dynamics*

Adjoint School 2022

under the supervision of Paige Randall North

*Context, judgement, deduction* (with Ivan Di Liberti)

November 2021

under review, arXiv:2111.09438

*A categorical perspective on Heyting-valued sets*

July 2019, Master's thesis

\* Awarded AILA's annual prize for the best Italian theses in Mathematical Logic

## INVITED TALKS

*Comonads for dependent types*

ItaCa Fest, online, May 2022

*Coding deductive systems into a 2-category*

TallCat, TalTech (Tallinn), May 2022

*Categories as syntax*

PhD<sup>2</sup>, Milano, December 2021

## CONTRIBUTED TALKS

*A 2-categorical representation of deduction*

Logic and higher structures, CIRM (Marseille), February 2022

*Context, judgement, deduction*

ItaCa Workshop, Genova, December 2021

*How to catch a non-set*

BYMAT, online, December 2020

## RANDOM

I like to play 7v7 football, and I am politically active in my community. I have always loved language and translation, in fact I have done the latter for some time from 2010 to 2012 for the fansubbing website *italiansubs.net*, and I translated two manuscripts from English to Italian for the literary agency Grandi & Associati. I have also been chaperoning authors attending the Women's Fiction Festival in Matera from 2008. I am fluent in English and decent in Spanish. I'm trying to learn Russian. I have taught English to first graders, tutored many high-schoolers in math (if you are reading this: I hope you are well and can remember the trick for trigonometric identities!). At some point I was preparing students for the entry test to Italian Med School. I got a Machine Learning certification once.