Tommaso Petrucciani

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◼ EXPERIENCE

PhD in Computer Science   2015 – 3/2019 (expected)
University of Genoa, Italy & Paris Diderot University, France
(joint PhD thesis)

TOPIC   Programming languages and type systems
THESIS   *Polymorphic set-theoretic types for functional languages*
ADVISORS   Giuseppe Castagna, Elena Zucca

I have worked on type checking for functional programming languages and especially on union *and* intersection types – *two features that are becoming more widely used in recent languages (e.g. TypeScript, Flow, Ceylon) – and how they interact with language features like*

- type inference *(as in OCaml and Haskell),*
- gradual typing *(a technique to integrate static and dynamic typing, as in TypeScript, Flow, or C#),*
- lazy evaluation *(as in Haskell).*

As well as studying the system formally, I have developed a prototype of the type inference engine in OCaml.

Visiting student   3–8/2015
Paris Diderot University, France

I have worked on my master's thesis: how to improve the type checking of polymorphic variants in OCaml using union and intersection types.

◼ EDUCATION

Master's degree in Computer Science   2013–2015
University of Genoa, Italy · final grade: 110/110 cum laude

THESIS   *A set-theoretic type system for polymorphic variants in ML*
ADVISORS   Giuseppe Castagna, Elena Zucca, Davide Ancona
REVIEWER   Eugenio Moggi

Bachelor's degree in Computer Science   2010–2013
University of Genoa, Italy · final grade: 110/110 cum laude

◼ SELECTED PUBLICATIONS

Giuseppe Castagna, Tommaso Petrucciani, Kim Nguyễn.
Set-theoretic types for polymorphic variants.
International Conference on Functional Programming (ICFP), 2016.

Giuseppe Castagna, Victor Lanvin, Tommaso Petrucciani, Jeremy G. Siek.
Gradual typing: a new perspective.
Proc. of the ACM on Programming Languages 3 (POPL), 2019 (to appear).

◼ OTHER EXPERIENCES

- Student Volunteer Captain in the Organizing Committee of POPL '17
- Student Volunteer (POPL '16, ICFP '16, and ICFP '17)
- Teaching assistant (University of Genoa, CS Department)
- External reviewer (OOPSLA '18)
- Student representative (University of Genoa, CS Department)

◼ PROGRAMMING & TECH

OCaml · Java · C · C++ · C#
Haskell · Scala
Python · JavaScript

Git · LaTeX · SQL · HTML · CSS

◼ LANGUAGES

- Italian   *native*
- English   *full professional proficiency*
- French   *working proficiency*