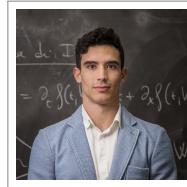


Davide Trotta

Curriculum Vitae

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Date of birth 4-4-1992



Appointments

- 5/2021– **Postdoctoral Position**
present *Department of Computer Science*, University of Pisa
- 12/2019– **Postdoctoral Position**
12/2020 *Department of Computer Science*, University of Verona

Education

- 11/2016– **Doctoral Programme**
12/2019 *Department of Mathematics*, University of Trento
Category Theory and Categorical Logic
- 10/2018– **Post-Graduate Diploma in Mathematical Finance**
5/2019 *Department of Mathematics*, University of Bologna
- 09/2014– **Master Degree in Mathematics, 110/110 cum laude**
10/2016 Department of Mathematics, University of Trento
- 09/2011– **Bachelor Degree in Mathematics, 110/110 cum laude**
08/2014 Department of Mathematics, University of Modena

PhD-thesis

Existential completion and pseudo-distributive laws: an algebraic approach to the completion of doctrines advisors: Giuseppe Rosolini, Roberto Zunino

Publications and Preprints

The existential completion

Theory and Applications of Categories Vol. 35, 2020, No. 43, pp 1576-1607.

The Gödel fibration

(j.w. M. Spadetto and V. de Paiva)

46th International Symposium on Mathematical Foundations of Computer Science (MFCS 2021), LIPIcs, Vol. 202, 2021, pp 87:1–87:16

Dialectica logical principles

(j.w. M. Spadetto and V. de Paiva)

to appear in LFCS2022

- Completions of elementary doctrines and pseudo-distributive laws**
submitted
- Generalized existential completions and their regular and exact completions**
(j.w. M.E. Maietti) submitted
- A presheaf semantics for quantified temporal logics**
(j.w. F. Gadducci) submitted
- Quantifier completions, choice principles and applications**
(j.w. M. Spadetto) submitted
- Compositional theories for host-core languages**
(j.w. M. Zorzi) submitted

Seminars

- 5-2017 **Cardinal Exponentiation and the Generalized Continuum Hypothesis**
University of Trento
- 7-2017 **Stability of Coherent Sheaves on Curves**
University of Verona
- 11-2017 **Elementary Quotient Completion**
University of Trento
- 6-2018 **Property-like 2-Monads and Completions**
University of Trento
- 7-2019 **The Existential Completion**
University of Edinburgh, Category Theory 2019
- 10-2019 **Generalized existential completion: an algebraic approach**
University of Trento
- 11-2019 **Doctrines in categorical logic and the existential completion**
University of Verona
- 12-2019 **Unification in the syntactic category and elementary completion**
University of Padova
- 12-2019 **Existential completion and pseudo-distributive laws: an algebraic approach to the completion of doctrines**
University of Trento, Oral Defence of the Phd Thesis
- 7-2020 **Hilbert ϵ -operator and existence property in categorical logic**
University of Verona
- 8-2020 **Choice principles via the existential completion**
Faro, Continuity, Computability, Constructivity – From Logic to Algorithms
- 11-2020 **The existential completion, choice principles and applications**
ItaCa Fest
- 8-2021 **The Gödel fibration**
46th International Symposium on Mathematical Foundations of Computer Science (MFCS 2021)

- 9-2021 **Generalized existential completions, regular and exact completions**
Category Theory 2021
- 9-2021 **Dialectica logical principles via free categorical constructions**
Continuity, Computability, Constructivity – From Logic to Algorithms (CCC2021)

Invited talks

- 4-2019 **The Existential Completion**
University of Caserta
- 6-2019 **Unification in the Syntactic Category and Elementary Completion**
University of Milan
- 12-2020 **The existential completion, choice principles and applications**
Bay Area Categories and Types
- 5-2021 **The Gödel fibration**
Category Theory seminars in Cambridge
- 6-2021 **The Gödel fibration**
Logicians in Quarantine
- 10-2021 **Gödeldoctrines and Dialectica logical principles**
Ottawa Logic seminar

Teaching activity

- Algebra B, Trento, 60 hours, 2017

Honours and awards

- "The Merit Award ", edition 2017, Trento. It is a cash prize for UniTrento graduates established to reward their skills and their commitment to study
- Invited to the Trimester Program "Sets, Types and Constructions" at the Hausdorff Institute of Mathematics, Bonn, August 2018

Summer Schools

- 5-2018 **Types, Sets and Constructions, Bonn**, Germany
- 6-2018 **Toposes in Como, Como**, Italy
- 8-2018 **Scuola estiva di logica, Gargnano**, Italy
- 9-2019 **Quantum Languages Design and Implementation, Verona**, Italy

Service

- 2020 **QPL**, reviewer
- 2021 **FoSSaCS**, reviewer
- 2021 **Logical Methods in Computer Science**, reviewer
- 2021 **MFPS**, reviewer
- 2021 **CALCO**, reviewer

Computer skills

MATLAB Advance Level
C, C++ Advance Level
R Intermediate Level
Python Basic Level

MAGMA Advance Level
GAP Intermediate Level
Coq Intermediate Level

Languages

English C1
Italian Mother tongue

Disclaimer

In compliance with the Italian legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document.

Davide Trotta