Pietro Sabelli's

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Institute of Philosophy of the Czech Academy of Sciences

Jilská 1, Praha 1, 110 00

Current Position

2024 - 2025

Postdoctoral researcher. Department of Logic, Institute of Philosophy of the Czech Academy of Sciences

Education

2021 - 2024

Ph.D. in Mathematics. Department of Mathematics, University of Padua

Supervisors: Prof. Maria Emilia Maietti, Prof. Samuele Maschio

Thesis title: Around the Minimalist Foundation: (Co)Induction and Equiconsistency

Defended on December 16, 2024

2018 - 2020

M.Sc. in Mathematics. Department of Mathematics, University of Padua

Supervisor: Prof. Samuele Maschio

Thesis title: Internalizzazione della teoria dei tipi (Internalization of Type Theory)

Defended on December 11, 2020

Grade: 110/110 cum laude

2014 - 2017

B.Sc. in Mathematics. Department of Mathematics, University of Trento

Supervisor: Prof. Roberto Zunino

Thesis title: Principio di onniscienza in matematica costruttiva (Principle of

omniscience in constructive mathematics)

Defended on November 20, 2017

Grade: 109/110

Publications

2025

Equiconsistency of the Minimalist Foundation with its classical version. With M. E. Maietti. *Annals of Pure and Applied Logic*, Volume 176, Issue 2. DOI: 10.1016/j.apal.2024.103524

2022

A topological counterpart of well-founded trees in dependent type theory. With M. E. Maietti. *Electronic Notes in Theoretical Informatics and Computer Science*, Volume 3. Proceedings of MFPS XXXIX. DOI: 10.46298/entics.11755

2021

On the Compatibility Between the Minimalist Foundation and Constructive Set Theory. With S. Maschio. *Revolutions and Revelations in Computability. CiE* 2022. *Lecture Notes in Computer Science*, vol 13359. Springer, Cham. DOI: 10.1007/978-3-031-08740-0_15

Preprints

2024

A topological reading of inductive and coinductive definitions in Dependent Type Theory. Submitted. <u>arXiv:2404.03494</u>

Presentations at conferences and seminars

Mini-Workshop on Structures in Foundations of Mathematics.

Title of talk: Around the Minimalist Foundation: (Co)Induction and Equiconsistency Padova, Italy. September 23, 2024

XXVIII Incontro di Logica AILA.

Title of talk: A topological reading of (co)inductive definitions

Udine, Italy. September 5, 2024

Trimester program on Prospects of Formal Mathematics.

Title of talk: *Peculiarities of the Minimalist Foundation for Formal Mathematics* With M.E. Maietti. Bonn, Germany. June 2024

Workshop on Homotopy Type Theory / Univalent Foundations

Title of talk: A topological reading of (co)inductive definitions in Dependent Type Theories

Leuven, Belgium. April 4, 2024

Continuity, Computability, Constructivity. From Logic to Algorithms.

Title of talk: *Inductive and Coinductive predicates in the Minimalist Foundation* Kyoto, Japan. September 26, 2023

Continuity, Computability, Constructivity. From Logic to Algorithms.

Title of talk: Revisiting the equivalence between theories and models of dependent type theory using Curien's explicit syntax

Pittsburgh, USA. February 10, 2023

Mathematical Foundations of Programming Semantics.

Title of talk: A topological counterpart of well-founded trees in dependent type theory Online. June 23, 2023

Continuity, Computability, Constructivity. From Logic to Algorithms.

Title of talk: On the relationship between well-founded trees and inductive generation of pointfree topology

Padova, Italy. September 21, 2022

Computability in Europe: Revolutions and Revelations in Computability.

Title of talk: On the compatibility between the Minimalist Foundation and

Constructive Set Theory

Swansea, UK. July 12, 2022

Research visits

Hausdorff Research Institute for Mathematics, Bonn, Germany.

Trimester program on Prospects of Formal Mathematics.

May 19 – June 7

Carnegie Mellon University, Pittsburgh, USA.

Host: Prof. Steve Awodey.

January 12 — March 29, 2023.

Graduate schools attended

School on Univalent Mathematics

Organized by Scuola Matematica Interuniversitaria (SMI)

Cortona, Italy. July 17-23, 2022

Midlands Graduate School in the Foundations of Computing Science

Organized by the University of Nottingham Nottingham, UK. April 10-14, 2022

Awards

Winner of Premio Tesi 3+2 2021, awarded by AILA – Associazione Italiana di Logica e sue Applicazioni – to the best M.Sc. thesis in Mathematical Logic.

Other scientific activities

Member of the Organising Committee of the Mini-Workshop on Structures in Foundations of Mathematics

Member of the Organising Committee of the 5th ItaCa Workshop 2024

Member of the Organising Committee of the workshop Continuity, Computability, Constructivity. From Logic to Algorithms

Member of the Organising Committee of the Workshop on Doctrines and Fibrations.

Last updated: December 29, 2024