Pablo Donato

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Post-doctoral researcher in Computer Science.

Education

Ph.D. in Computer Science
Institut Polytechnique de Paris
2020 — 2024 Palaiseau, France

Researched novel graphical interfaces for proof assistants.

M.Sc. in Computer Science
MPRI (Master Parisien de Recherche en Informatique)
2018 — 2020 Paris, France

B.Sc. in Computer Science
Université Pierre et Marie Curie
2016 — 2017 Paris, France

Experience

Post-doctoral researcher
Grothendieck Institute
2024—2025 Paris, France

Worked on the formalization of topos theory in the Lean proof assistant.

mathlib PR 1 *mathlib PR 2* *mathlib PR 3*

Teaching assistant
Université de Paris, École Polytechnique
2020—2023 Paris, France

Teached Java, Python and Web programming to bachelor students at various levels.

Projects

Flower Prover 2023 — Present

The Flower Prover is a prototype of GUI for interactive theorem proving by direct manipulation of structured boxes called *flowers*.

Try it! *GitHub*

coq-actema 2022 — Present

coq-actema is a system that integrates the interface of Actema in the Rocq proof assistant as an interactive proof view.

GitHub

Actema 2020 — 2022

Actema is a prototype of GUI for interactive theorem proving by direct manipulation of formulas in goals.

Try it! *Frontend* *Backend*

Communications

Publications

The Flower Calculus
FSCD 2024
July 2024 Tallinn, Estonia

DOI

A drag-and-drop proof tactic
CPP 2022
January 2022 New York, USA

DOI *talk*

Conferences

The Flower Calculus
JMM 2025
January 2025 Seattle, USA

abstract

Actema : une interface graphique et gestuelle pour preuves formelles (démonstration)
JFLA 2022
June 2022 Saint-Médard-d'Excideuil, France

abstract

A drag-and-drop proof tactic
TYPES 2021
June 2021 Online

abstract

Symposiums and Workshops

The Flower Calculus
SYCO 12
April 2024 Birmingham, UK

talk

Integrating graphical proofs in Coq
CoqPL 2023
January 2023 Boston, USA

talk