Denis Mazzucato

Ph.D. Student

denis.mazzucato@inria.fr
denismazzucato.github.io

Education

(Accepted) 2025 **Postdoc**, *GSSI, CMU & NASA*, California (USA) and L'Aquila (IT),
advised by Franco Raimondi and Corina Pasareanu
Proving the Absence of Timing Side Channels in Cryptographic Applications

2020–2024 **Ph.D.**, *Inria & École Normale Supérieure | PSL*, Paris (FR), supervised by Caterina Urban
Static Analysis by Abstract Interpretation of Quantitative Program Properties

2015–2020 **Master and Bachelor**, *University of Padua*, Padua (IT), magna cum laude 110/110
Computer Science, Dipartimento di Matematica, Università degli Studi di Padova

Experiences

2024 **Fundings Award**, *Automated Reasoning Amazon Research Award*, Amazon, $70,000
"Proving the Absence of Timing Side Channels in Cryptographic Applications" with Corina Pasareanu.

2023 **Summer School**, *Summer School Marktoberdorf*, Marktoberdorf (DE)
Scientific foundations and technologies for improving the quality and security of software.

2022 **Research intern**, *Amazon*, Prime Video, London (UK)
Six months internship project in Amazon Prime Video as a research intern.

2019–2020 **Exchange Program**, *Vrije Universiteit*, Amsterdam (NL)
Six months exchange program at the VU in Amsterdam.

2018 **Developer**, *THRON*, Piazzola sul Brenta, Padua (IT)
Quality Assurance, three months internship.

Programming languages

Fluent Python, Scala
Known Agda, C, C++, Haskell, Java, Lean, OCaml

Spoken languages

Fluent English, Italian
Known French, Dutch

Interest

Static Analysis, Abstract Interpretation, Verification, Security, Formal Methods, Theorem Provers

Conference Service

Sub-Reviewer CSV 2024, TACAS 2023, CAV 2021
AEC PLDI 2024, ECOOP 2024 TACAS 2023/24, CAV 2023, SAS 2022/23
SV ETAPS 2023, SPLASH 2022/23, CAV 2021

Publications

Under Review **Quantitative Static Timing Analysis**,
Denis Mazzucato, Marco Campion, and Caterina Urban

NFM 2024 **Quantitative Input Usage Static Analysis**,
`https://hal.science/hal-04339001`
Denis Mazzucato, Marco Campion, and Caterina Urban

SAS 2021 **Reduced Products of Abstract Domains for Fairness Certification of Neural Networks**,
`https://doi.org/10.1007/978-3-030-88806-0_15`
Denis Mazzucato and Caterina Urban