

# Fadi Barbàra

University of Turin  
Ph.D. Student

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## Current positions

2018- **Ph.D. student in Computer Science**, *Università degli Studi di Torino, Italy*, Topics: blockchain interoperability and privacy  
Supervisor: Dr. Claudio Schifanella

## Past positions

2020-2021 **BitPoliTo - Cryptography Leader**, *Polytechnic of Turin, Italy*

## Education

2017 **Master's Degree in Mathematics**, *Università degli Studi di Torino, Torino, Italy*  
103/110 | Thesis: "Anomaly detection with an application to financial data" | Prof: Elvira Di Nardo

2014 **Bachelor's Degree in Mathematics**, *Università degli Studi di Torino, Torino, Italy*  
87/110 | Thesis: "Zero-knowledge proofs" | Prof: Umberto Cerruti

## Research fellowships

01-/2022 **Research fellowship**, *Studio di meccanismi per la comunicazione cross-blockchain in architetture decentralizzate (renewal)*, supervisor: Claudio Schifanella. Department of Computer Science, University of Turin

01-12/2021 **Research fellowship**, *Studio di meccanismi per la comunicazione cross-blockchain in architetture decentralizzate (renewal)*, supervisor: Claudio Schifanella. Department of Computer Science, University of Turin

01-12/2020 **Research fellowship**, *Studio di meccanismi per la comunicazione cross-blockchain in architetture decentralizzate*, supervisor: Claudio Schifanella. Department of Computer Science, University of Turin

01-06/2019 **Research fellowship**, *"Tecnologie blockchain e aspetti di scalabilità: analisi critica e di studio di una proposta alternativa"*, supervisor: Guido Boella. Department of Computer Science, University of Turin

06-12/2019 **Research fellowship**, "*Meccanismi di interoperabilità tra differenti blockchain*", supervisor: Guido Boella. Department of Computer Science, University of Turin

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## Participation in research projects

2018-today **DLT4ALL**, project funded by the Erasmus+ Programme of the European Union with the goal to make Blockchain and Distributed Ledger Technologies (DLT) and their applications understandable. Responsible for Digital Signature Learning Module. <https://dlt4all.eu/>

2018-2019 **BLINC**, EU funded Italian Regional on Inclusive Blockchain for Digital Citizenship. <https://blinc.di.unito.it/>

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## Invited talks

04-2020 **Bitcoin Privacy Problem**, *CrypTO - Polytechnic of Turin, Italy*

11-2019 **Bitcoin transactions from the command line**, *Department of Computer Science, University of Stirling, Scotland*

06-2019 **DLT4ALL - Digital Signatures**, *Department of Computer Science, Università degli Studi di Torino, Italy*

05-2019 **Current state of blockchain technology**, *MaxApplication, Biella, Italy*

05-2019 **Blockchain interoperability**, *Department of Computer Science, Università degli Studi di Torino, Italy*

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## Visiting

10/2019- **Visiting PhD student**, at *University of Stirling (Scotland)* under

11/2019 *the supervision of Prof. Andrea Bracciali. Research topic: blockchain interoperability*

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## Publications

2021 **Towards a Broadcasted Time-Lock exchange**, *Barbàra, F.; Murru N., Schifanella, C.*, FPDAPP 2021

2020 **P2T: Pay to Transport**, *Barbàra, F.; Schifanella, C.*, FPDAPP 2020

2020 **DMix: Decentralized mixer for Unlinkability**, *Barbàra, F.; Schifanella, C.*, BRAINS 2020

2019 **Secure off-chain computations for a private on-chain interoperability**, *Barbàra, F.; Boella, G.; Guffanti, A.; Schifanella, C.*, BDLT 2019

2019 **BLINC: Inclusive Blockchain for Digital Citizenships**, *Barbàra, F.; Boella, G.; Cordero, A.; Schifanella, C.*, I-CITIES 2019

2018 **E. Analysis of the Incidence of Poxvirus on the Dynamics between Red and Grey Squirrels**, *Barbara, F.; La Morgia, V.; Parodi, V.; Toscano, G.; Venturino*, *Mathematics*, 6(7), 113  
<https://doi.org/10.3390/math6070113>

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## Languages

Mother Italian  
tongue

Foreign English | IELTS Certificate (7.0), Proficient User