

# Giulia Scaffino, M.Sc.

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✉ @GScaffino

in Giulia Scaffino

🌐 <https://github.com/scaffino>



## About me

I am a Ph.D. candidate in Computer Science at the Vienna University of Technology (TU Wien) in the Security and Privacy group, jointly advised by Univ.Prof. Matteo Maffei and Dr. Zeta Avarikioti. Since 2024, I concurrently work for Common Prefix, where along with a team of scientists and software engineers I offer blockchain science consulting services. My research focuses on blockchain interoperability and scalability protocols, sparse and light clients, layer-2 solutions, and crypto-economic incentives.

## Education

- 2020 – now **Ph.D. Candidate at TU Wien.**  
Advisors: *Univ.Prof. Matteo Maffei, Dr. Zeta (Georgia) Avarikioti*
- 2023 **The 13th BIU Winter School on Cryptography, Bar-Ilan University (Israel)**
- 2017 – 2019 **B.Sc & M.Sc. Nuclear Physics, University of Pavia (Italy).**  
M.Sc. thesis title: *Analysis of the  $\pi_0$  photoproduction in the  $\Delta(1232)$  region*  
Advisors: *Dr. Susanna Costanza and Dr. Edoardo Mornacchi*

## Internships, Research Visits, Jobs

- 2024 – now **Consultant at Common Prefix.**
- Jun-Sept 2024 **Research Intern at Mysten Labs.**
- Aug-Sept 2023 **Research Visitor at Univ.Prof. David Tse Lab (Stanford).**
- Jan-Nov 2020 **Salesforce Developer at Deloitte Digital (Milan).**

## Program Committee Member

I have served as Program Committee member in the following conferences and workshops: Financial Cryptography and Data Security 2025, IEEE International Conference on Blockchain and Cryptocurrency 2025, Beyond the Chain: 2nd Workshop on DAG-based Distributed Ledger Technologies (co-affiliated with IEEE ICBC '24), and Workshop on Scalability & Interoperability of Blockchains (co-affiliated with AFT '24). Prior to this, I have reviewed papers for prominent conferences such as USENIX, NDSS, AFT, DISC, and SBC.

## Research Publications

### Conference Papers

- 1 L. Aumayr, Z. Avarikioti, M. Maffei, G. Scaffino, and D. Zindros, "Blink: An Optimal Proof of Proof-of-Work," in *In submission at Financial Cryptography and Data Security 2025*, 2024. [🔗 URL: https://eprint.iacr.org/2024/692](https://eprint.iacr.org/2024/692).
- 2 G. Scaffino, L. Aumayr, M. Bastankhah, Z. Avarikioti, and M. Maffei, "Alba: The Dawn of Scalable Bridges for Blockchains," in *Accepted at The 32nd edition of the Network and Distributed System Security Symposium (NDSS)*, 2024. [🔗 URL: https://eprint.iacr.org/2024/197](https://eprint.iacr.org/2024/197).
- 3 G. Scaffino, K. Wüst, D. Maram, A. Sonnino, and L. Kokoris-Kogias, "Sunfish: Reading Ledgers with Sparse Nodes," in *In submission at Financial Cryptography and Data Security 2025*, 2024. [🔗 URL: https://eprint.iacr.org/2024/1680](https://eprint.iacr.org/2024/1680).
- 4 G. Scaffino, L. Aumayr, Z. Avarikioti, and M. Maffei, "Glimpse: On-Demand PoW Light Client with Constant-Size Storage for DeFi," in *The 32nd USENIX Security Symposium, USENIX Security 2023, Anaheim, CA, USA, August 9-11, 2023*, USENIX Association, 2023. [🔗 URL: https://www.usenix.org/conference/usenixsecurity23/presentation/scaffino](https://www.usenix.org/conference/usenixsecurity23/presentation/scaffino).
- 5 M. Sober, G. Scaffino, C. Spanring, and S. Schulte, "A Voting-Based Blockchain Interoperability Oracle," 2021. [🔗 URL: https://api.semanticscholar.org/CorpusID:244462855](https://api.semanticscholar.org/CorpusID:244462855).

## Skills

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Languages 📖 English (C1), Italian (mother tongue), German (B1), French (A1).  
Coding 📖 Python,  $\LaTeX$ , and basic Rust and C++

## Miscellaneous

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### Presentations

- 2024 📖 **Blink PoW Light Client & Scalable Bridges** (Chainlink and Pantos/Bitpanda teams)
- 2023 📖 **Glimpse: On-Demand PoW Light Client with Constant-Size Storage for DeFi** (VISA Research)

### Teaching

2021 – now 📖 **Teaching Assistant in the Cryptocurrencies course at TU Vienna**

### Awards

- 2023 📖 **Listed among the outstanding TUW Under 30** (see [here](#))
- 📖 **Recipient of the conference attendance grant for female master's students at TU Vienna**