# CURRICULUM VITAE OF FRANCESCO PIO MARINO

# February 2025

#### Personal Data

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#### Education

Ph.D. in Computer Science University of Catania, Catania, Italy	08 2023 — Present
Ph.D. in Computer Science	08 2023 — Present
University of Rouen, Rouen, France	
Master Degree in Computer Science University of Catania, Catania, Italy	09 2020 — 07 2022
Erasums Kaunas Technology University, Kauans, Lithuania	09 2021 — 02 2022
Bachelor Degree in Computer Science	09 2017 — 07 2020

### Scientific and Research Activity

University of Catania, Catania, Italy

### RESEARCH INTERESTS

Algorithms on strings, combinatorial algorithms, automata theory, exact and approximate pattern matching, data compression, text indexing, string sampling, sorting algorithms

### INTERNATIONAL CONFERENCES AS SPEAKER

- Prague Stringology Conference 2020 (PSC20) 31 August 2 Septembre 2020, Prague, Czech Republic.
- Workshop on Compression, Text and Algorithms (WCTA 2020) 16 October 2020, Online.
- $Prague\ Stringology\ Conference\ 2021\ (PSC20)$ 30-31 August 2021, Prague, Czech Republic.
- Italian Conference on Theoretical Computer Science 2021. 13-15 September 2021, Bologna, Italy.
- Quantum Search and Information Retrieval (QUASAR24) 3 June 2024, Pisa, Italy.
- 12th International Conference on Fun with Algorithms (FUN24) 4-8 June 2024, Island of La Maddalena, Italy.
- Future Conference Technology (FTC24) 14-15 November 2024, London, United Kingdom.
- The 29th London Stringology Days & London Algorithmic Workshop (LSD & LAW for Costas)
  5 February 2025, London, United Kingdom
- Sequences in London, 6-7 February 2025, London, United Kingdom
- 2nd Workshop on Quantum Algorithms, Software and Applied Research, QUASAR25 20 July 2025, South Bend, IN USA.

## INTERNATIONAL JOURNALS (2 PAPERS)

- Simone Faro, Francesco Pio Marino and Arianna Pavone. Efficient Online String Matching Based on Characters Distance Text Sampling. Algorithmica, Springer, 2020. doi:10.1007/s00453-020-00732-4
- 2. Simone Faro, Francesco Pio Marino and Arianna Pavone. Improved characters distance sampling for online and offline text searching. *Theoretical Computer Science*, Volume 946, 2023. doi:https://doi.org/10.1016/j.tcs.2022.12.034

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## INTERNATIONAL CONFERENCES (11 PAPERS)

3. Simone Faro and Francesco Pio Marino. Reducing Time and Space in Indexed String Matching by Characters Distance Text Sampling. *Proceedings of the Prague Stringology Conference 2020*, PSC 2020

- 4. Simone Faro, Francesco Pio Marino, Stefano Scafiti. Fast-Insertion-Sort: a New Family of Efficient Variants of the Insertion-Sort Algorithm. Proceedings of the SOFSEM 2020 Doctoral Student Research Forum co-located with the 46th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2020), CEUR Workshop Proceedings, Vol.2568, pp. 37-48, 2020.
- 5. Simone Faro, Francesco Pio Marino, Arianna Pavone and Antonio Scardace. Towards an Efficient Text Sampling Approach for Exact and Approximate Matching. *Proceedings of the Prague Stringology Conference 2021, PSC 2021.*
- 6. Simone Faro, Francesco Pio Marino and Arianna Pavone. Enhancing Characters Distance Text Sampling by Condensed Alphabets. *Proceedings of the 22nd Italian Conference on Theoretical Computer Science*, *ICTCS 2021*.
- 7. Simone Faro, Francesco Pio Marino, Andrea Moschetto, Arianna Pavone and Antonio Scardace. The Great Textual Hoax: Boosting Sampled String Matching with Fake Samples. Proceedings of the 12th International Conference on Fun with Algorithms, FUN 2024.
- 8. Simone Faro, Francesco Pio Marino and Antonio Scardace. Practical Implementation of a Quantum String Matching Algorithm. Quantum Search and Information Retrieval, QUASAR24.
- Simone Faro, Francesco Pio Marino and Andrea Moschetto Beyond Horspool: A Comparative Analysis in Sampled Matching. Proceedings of the Prague Stringology Conference 2024, PSC 2024.
- Domenico Cantone, Claudio Caudullo, Simone Faro, Francesco Pio Marino, Arianna Pavone and Caterina Viola. Practical Quantum Combinatorial String Matching Future Technologies Conference (FTC) 2024.
- 11. Simone Faro, Thierry Lecroq, Francesco Pio Marino, Arianna Pavone and Stefano Scafiti. Improving Sampled Matching through Character Context Sampling *Proceedings of the 25nd Italian Conference on Theoretical Computer Science, ICTCS 2024.*
- 12. Simone Faro, Francesco Pio Marino. Scaling Grover's Search for Large Solution Spaces. 2nd Workshop on Quantum Algorithms, Software and Applied Research, QUASAR25.
- 13. Simone Faro, Francesco Pio Marino and Gabriele Messina. Qutes: A High-Level Quantum Programming Language for Simplified Quantum Computing. 2nd Workshop on Quantum Algorithms, Software and Applied Research, QUASAR25.

### REFEREE SERVICES

Reviewer for the following international journals and conferences:

• Transactions on Quantum Computing, ACM