

Efe İzbudak

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INTERESTS

Theoretical cryptography, higher category theory, commutative algebra

EDUCATION

Middle East Technical University
BSc in Mathematics, GPA: 4.00/4.00

Ankara, TR
2022–2026

RESEARCH EXPERIENCE

Sabanci University

Cryptography and Information Security Group

- Research focused on accelerating homomorphic encryption primitives

İstanbul, TR
August 29 – Current

Sabanci University

Monthly meetings with Ferruh Özbudak, Kamer Kaya, and Selim Kırbiyık

- Presenting recent academic papers on post-quantum cryptography

İstanbul, TR
September 28 – Current

Sabanci University

Program for Undergraduate Research (PURE)

- Developing accelerators for homomorphic encryption
- Supervisor: Erkay Savaş

İstanbul, TR
Summer 2024

CONTRIBUTED TALKS

All Morphisms Are Equal, But Some Morphisms Are More Equal Than Others
DRP Türkiye, Report, Slides

Sabanci University
September 5, 2024

LEARNING SEMINARS

Serre's Local Algebra

Özgür Kişisel, 2 talks contributed, notes (incomplete).

Middle East Technical University
Spring 2024 – Current

Categorical Quantum Mechanics

Cihan Okay

Bilkent University
Spring 2024

CERTIFICATES

- LFD103, The Linux Foundation, February 2023

SCHOLARSHIPS AND AWARDS

- TMD Cahit Arf Scholar January 2024 - Current
- TOG-Bezmen Scholarship 2022 - Current

SKILLS

- Python, Rust, Shell Scripting
- \LaTeX , Git, Linux Administration (Gentoo)
- Cryptography, Digital Forensics

LANGUAGES

- **English:** Fluent
- **French:** Basic reading
- **Turkish:** Native

MISCELLANEOUS

Community contributions

- Tor Project, Relay Operator December 2020 – Current
Supporting global internet freedom by maintaining a secure bridge.
- Gentoo, Proxied Maintainer August 2022 – Current
Maintained packages: `sc-im`, `mutt-wizard`, `libxlsxwriter`
- Qubes, Technical Documentation Writer November 2020 – December 2020
We have produced the `split-ssh` method.

Founding projects

- Libeior.org, Founder, System Administrator February 2023 – January 2024
Libeior was an organization providing secure and free e-mail/XMPP accounts.
- Liberpub, Founder, System Administrator July 2022 – January 2024
Liberpub was an online printing service with no initial cost for the author.

Freelance experience

- Upwork, Freelance Software Developer July 2022 – September 2023
Projects include: \LaTeX to MathJax conversion, PDF harvesting and manipulation

PRESENTATIONS

<i>Sparse Packing for CKKS</i> Slides	Sabanci University Summer 2024
<i>Fast Multiplication and PLWE-RLWE Equivalence</i> Slides	Online Fall 2024
<i>Lattice-Based Foundations of Homomorphic Encryption</i> Slides	Middle East Technical University Fall 2024
<i>Cryptanalysis of PLWE Based on Zero-Trace Quadratic Roots</i> Slides	Online Winter 2025