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Georgios Tsimos

PhD Candidate in Cryptography

Website, Google Scholar
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EDUCATION

Ph.D. in ELECTRICAL ENGINEERING

University of Maryland, College Park

2019- Present (exp. Feb. 2025)

Advisors: Professor **Charalampos Papamanthou** (at Yale)

Professor **Jonathan Katz** (at UMD)

M.Sc. in ELECTRICAL ENGINEERING

University of Maryland, College Park

M.Sc. in COMPUTER SCIENCE

Athens University of Economics and Business, Greece

2018/2019

(Honors)

B.Sc. (4-year Ptychion) in COMPUTER SCIENCE

Athens University of Economics and Business, Greece

2014/2018

(Honors, Valedictorian)

ABOUT

I am a **PhD Candidate** co-advised by **Charalampos Papamanthou** and **Jonathan Katz**, at the **Electrical Engineering** department at the **University of Maryland**. Since December of 2022, I am also a Visiting Assistant Researcher (VAR) at Yale. My **research interests** include several aspects of **applied Cryptography and distributed computing**, such as **Byzantine Consensus and Blockchains**, **MPC**, **DKG** and more. I am also more generally interested in other Theoretical CS topics, including Logic, Computational Complexity, and ML. My **research objective** is to perform fundamental research with practical, application-driven impact. My **ongoing research projects** include new techniques for more resource-efficient and assumption-light protocols related to **Consensus**, **DKG** and **MPC** as well as **practical** improvements of efficiency metrics in Blockchains. As an intern at Chainlink, I am **implementing** subprotocols in **Golang**, aiming to further improve the latency and robustness of the underlying protocol.

RESEARCH EXPERIENCE

Research Intern

Chainlink Labs

May 2024- Present

Remote

Research Intern in Distributed Systems

Mysten Labs

May 2023- August 2023

Remote

Designed and analyzed the correctness of “Hammerhead”, that is published and a part of Sui mainnet since Sept. 2023.

Visiting Assistant Researcher in COMPUTER SCIENCE

Yale University

Dec 2022- Present

New Haven, CT

Visiting Researcher

CISPA Helmholtz Center for Information Security

Dec 2022

Saarbrücken, Germany

Graduate Research Assistant

Maryland Cybersecurity Center (MC2 Lab)

Aug. 2019 — Present

University of Maryland, College Park, MD

PUBLICATIONS

D. Collins and S. Duan and J. Loss and C. Papamanthou and **G. T.** and H. Wang:

“Towards Optimal Parallel Broadcast under a Dishonest Majority”

Partially while visiting CISPA

submitted

A. Alexandru and J. Loss and C. Papamanthou and **G. T.** and B. Wagner:

“Sublinear-Round Broadcast without Trusted Setup”

Partially while at Yale

Accepted! SODA 2025

G. T. and A. Tsichidis and A. Sonnino and L. Kokoris-Kogias:

“HammerHead: Leader Reputation for Dynamic Scheduling”

During Internship at Mysten Labs

Accepted! ICDCS 2024

F. Elsheimy and **G. T.** and C. Papamanthou:

“Deterministic Byzantine Agreement with Adaptive $O(n \cdot f)$ Communication”

While at Yale

Accepted! SODA 2024

A. Alexandru and J. Loss and C. Papamanthou and **G. T.**:

“Sublinear-Round Broadcast without Trusted Setup against Dishonest Majority”

manuscript

G. T. and J. Loss and C. Papamanthou:

“Gossiping For Communication-Efficient Broadcast”

Accepted! CRYPTO 2022

HONORS AND AWARDS

STUDENT TRAVEL GRANT (\$650)

January 2024

SIAM, SODA

DEAN’S FELLOWSHIP (\$15,000)

for the First Year of Ph.D.

Aug. 2019 — Jun. 2020

University of Maryland, College Park, MD

OUTSTANDING ACADEMIC PERFORMANCE SCHOLARSHIP (\$5,000)

June 2022

Gerondelis Foundation

AWARD IN MEMORY OF MICHALIS MITILINAIOS (€300)
for *Top Performance* in selected TCS courses

2016- 2017
AUEB, Greece

SKILLS

Communication: English (fluent speaker) , Greek (native) , Spanish (basic communication)

VOLUNTARY ACTIVITIES AND SERVICE TO THE COMMUNITY

Program Committees: (Upcoming) CCS'25

Reviewer: JOC'24, FINANCIAL CRYPTO'24, AFT'23, CCS'23, PKC'23, FINANCIAL CRYPTO'23, CCS'22, EUROCRYPT'21

REFERENCES

Associate Professor **Charalampos (Babis) Papamanthou** (at Yale), (Ph.D Advisor): charalampos.papamanthou@yale.edu
Assistant Professor **Julian Loss** (at CISP), (Research Collaborator): lossjulian@gmail.com
Assistant Professor **Lefteris Kokoris-Kogias** (at IST Austria, Mysten Labs), (Internship Advisor): lefteris@mystenlabs.com
Further references can be provided upon request.