

# Emmanouil (Manos) Kariotakis

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## EDUCATION

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### KU Leuven

Doctoral Programme in Engineering Science (PhD)

Department of Electrical Engineering (ESAT)

Advisor: [Aritra Konar](#)

Sep 2023 - present

### Technical University of Crete (TUC)

BSc & MEng in Electrical and Computer Engineering

Advisor: [Aggelos Bletsas](#)

Grade: 9.36/10 (*top 1% of total school's graduates as of Oct 2022*)

Summa cum laude

Sep 2017 - Oct 2022

### High School Degree

4th High School of Heraklion, Greece

Grade: 19.5/20

Nationwide University Entrance Exams: 18.053/20.000

Sep 2014 - Jul 2017

## RESEARCH INTERESTS

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Graph Mining, Theoretical Machine Learning, Optimization, Signal Processing

## EXPERIENCE

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### PhD Researcher

STADIUS Center for Dynamical Systems, Signal Processing and Data Analytics - ESAT, KU Leuven

- Conducting research on Graph Mining

Sep 2023 - present

### Research Assistant

Signal Processing Laboratory, Institute of Computer Science - FORTH

- Design and study of a system that leverages sparsity across input and intermediate layers of a neural network that gets trained and operates in a distributed manner by resource-constrained workers.

Advisors: [Grigorios Tsagkatakis](#), [Anastasios Kyrillidis](#) (Rice University)

Nov 2022 - Aug 2023

### Undergrad Research Assistant

Telecommunication Systems Research Institute (TSI), TUC

- Research on asynchronous, in-network processing with probabilistic graphical model (PGM)-based inference algorithms.

Mar 2022 - Sep 2022

### Research Intern

Signal Processing Laboratory, Institute of Computer Science - FORTH

Jul 2020 - Aug 2020

## PUBLICATIONS

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- [E. Kariotakis](#) and A. Bletsas, "Probabilistic asynchronous inference in wireless networks with spectral clustering," in IEEE EUSIPCO, 2023.
- [E. Kariotakis](#), G. Tsagkatakis, P. Tsakalides, A. Kyrillidis, "Leveraging Sparse Input and Sparse Models: Efficient Distributed Learning in Resource-Constrained Environments", in Conference on Parsimony and Learning (CPAL). PMLR, 2024.

## TEACHING ASSISTANTSHIP

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### CS317 – Applied Stochastic Processes

Computer Science Department, University of Crete

Spring 2023

### CS217 – Probability Theory

Computer Science Department, University of Crete

Fall 2022

## HONORS & AWARDS

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**Summa cum laude**  
Technical University of Crete

Oct 2022

## SKILLS

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<b>Technical Skills</b>	Python, Matlab, C, Java, L <sup>A</sup> T <sub>E</sub> X
<b>Languages</b>	English (fluent), German, Greek (native)

## ACTIVITIES

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- Volunteer at 2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)
- Degree in Music Harmony, June 2016
- Playing the piano and the guitar