

Sotiris Kanellopoulos

Theoretical Computer Science PhD Student

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Date of Birth: 12/2/1999

Research Interests

Computational Complexity, Algorithmic Game Theory, Algorithmic Graph Theory, Approximation Algorithms, Scheduling Theory

Education

2022 - present **PhD** in Theoretical Computer Science

National Technical University of Athens, School of Electrical and Computer Engineering

Thesis: "Fair Scheduling and Allocation: Exact and Parameterized Algorithms, Approximability and Complexity"

Advisor: Aris Pagourtzis

2017 - 2022 **Diploma** in Electrical and Computer Engineering (GPA: 9,34/10,00)

National Technical University of Athens, School of Electrical and Computer Engineering

Thesis: "Applications of Logic to Counting Algorithms"

Advisor: Aris Pagourtzis

2017 Graduated from Erasmeios Greek-German School (GPA: 20,0/20,0)

Publications

2026 **"The Complexity of Computing Class Probabilities in BID Probabilistic Databases"**

With I. Koutras and A. Pagourtzis. (preprint)

2026 **"Temporal Path Covers: Dilworth Properties and Parameterized Complexity"**

With L. Cioni, E. Nemery, A. Pagourtzis, C. Pergaminelis, and M. Vasilakis. (preprint)

2026 **"Finite Pinwheel Covering"**

Accepted at ISAAC 2026. (preprint)

2026 **"EF(X) Orientations: A Parameterized Complexity Perspective"**

With E. Nemery, C. Pergaminelis, M. M. Sotiriou, and M. Vasilakis.

Accepted at WINE 2026. (preprint)

2026 **"Hardness, Tractability and Density Thresholds of Finite Pinwheel Scheduling Variants"**

With G. Mitropoulos, C. Pergaminelis, and T. Tolias.

Proceedings of ICALP 2026.

2026 **"Beer Path Problems in Temporal Graphs"**

With A. D'Ascenzo, G. F. Italiano, A. Mpanti, A. Pagourtzis, and C. Pergaminelis.

Proceedings of IWOCA 2026 & selected for JCSS special issue.

2026 **"Finite Pinwheel Scheduling: the k-Visits Problem"**

With C. Pergaminelis, M. Kokkou, E. Markou, and A. Pagourtzis.

Proceedings of SODA 2026.

2025 **"Approximation Schemes for k-Subset Sum Ratio and k-Way Number Partitioning Ratio"**

With G. Mitropoulos, A. Antonopoulos, N. Leonardos, A. Pagourtzis, C. Pergaminelis, S. Petsalakis, and K. Tsitouras.

Proceedings of ISAAC 2025.

2024 **"The Computational Complexity of Finding Second-Order Stationary Points"**

With A. Kontogiannis, V. Pollatos, P. Mertikopoulos, A. Pagourtzis, and I. Panageas.

Proceedings of ICML 2024.

2024 **"On the Power of Counting the Total Number of Computation Paths of NPTMs"**

With E. Bakali, A. Chalki, A. Pagourtzis, and S. Zachos.

Proceedings of TAMC 2024.

2022 **"Applications of Logic to Counting Algorithms"**

Diploma Thesis (in Greek).

DISTINCTIONS & AWARDS

2023 - 2027 Received **PhD Fellowship** from **Archimedes Research Unit** (4-year support)

2017 Received scholarship **"The Great Moment of Education"** by Eurobank for highest score in Panhellenic Exams among the students of Erasmeios Greek-German School

2017 **27th Prize** at the 31th Greek National High School Chemistry Competition

2017 **Bronze Medal** at the 34th Greek National Mathematical Olympiad "Archimedes"

2016 **Bronze Medal** at the 33rd Greek National Mathematical Olympiad "Archimedes"

2016 **8th Prize** at the 26th Greek National High School Physics Competition

2015 **17th Prize** at the 25th Greek National High School Physics Competition

2014 **Silver Medal** at the 31st Greek National Mathematical Olympiad "Archimedes"

RESEARCH VISITS

Oct 2026 Invited participant in **Dagstuhl Seminar** "Recent Trends in Perpetual Scheduling"

Sep 2026 Visitor at **Princeton University**

Jun 2026 Visitor at **Paris Dauphine University – PSL** (IWOCA 2026 Extended Stay)

Collaboration with Laurent Gourvès, Michael Lampis, Edouard Nemery, and Manolis Vasilakis

Topic: Temporal Path Cover problems

Mar 2026 Visitor at **University of Liverpool**

Collaboration with Leszek Gąsieniec, Karteek Sreenivasaiah, and Prudence Wong

Topic: Perpetual Scheduling problems

Apr 2025 Visitor at **LUISS University**, Rome

Collaboration with Giuseppe F. Italiano, Andrea D'Ascenzo, and Anna Mpanti

Topic: Temporal Path and Reachability problems

TEACHING EXPERIENCE

National Technical University of Athens

2025 - 2027 Teaching Assistant in "Foundations of Computer Science"

2023 - 2025 Lab Assistant in "Programming Techniques"

2019 - 2023 Lab Assistant in "Computer Programming"

TALKS

"Finite Pinwheel Covering"

- 37th International Symposium on Algorithms and Computation **(ISAAC 2026)**

"EF(X) Orientations: A Parameterized Complexity Perspective"

- 22nd Conference on Web and Internet Economics **(WINE 2026)**
- 21st Athens Colloquium on Algorithms and Complexity (ACAC 2026)
- Archimedes Research Unit Theory Seminar (2026)

"On Finite Variants of the Pinwheel Scheduling Problem"

- Dagstuhl Seminar "Recent Trends in Perpetual Scheduling" (2026)
- Princeton University, Department of Computer Science Theory Seminar (2026)
- Archimedes Research Unit Theory Seminar (2026)
- AGaPe-GOThA Workshop at LIP6, Sorbonne University (2026)

"Hardness, Tractability and Density Thresholds of Finite Pinwheel Scheduling Variants"

- 53rd EATCS International Colloquium on Automata, Languages, and Programming **(ICALP 2026)**

"Finite Pinwheel Scheduling: the k-Visits Problem"

- ACM-SIAM Symposium on Discrete Algorithms **(SODA 2026)**
- 3rd Congress of Greek Mathematicians (2026)
- University of Liverpool, School of Computer Science and Informatics Theory Seminar (2026)
- Archimedes Research Unit Theory Seminar (2025)
- 20th Athens Colloquium on Algorithms and Complexity (ACAC 2025)

"Approximation Schemes for k-Subset Sum Ratio and k-Way Number Partitioning Ratio"

- 36th International Symposium on Algorithms and Computation **(ISAAC 2025)**
- Archimedes Research Unit Theory Seminar (2025)

ACADEMIC SERVICE

- **Reviewer** for conferences: SODA (2027), AAAI (2027), ISAAC (2026), ALGOWIN (2026), ICDCS (2025 & 2026), LICS (2025), and FSTTCS (2025)
- **Organizing Committee** of Athens Colloquium on Algorithms and Complexity (ACAC 2025 & 2026)

SKILLS

- Excellent knowledge of **English** (**C2**): Cambridge Certificate of Proficiency in English (CPE)
- Very good knowledge of **German** (**C1**): Zertifikat C1
- Very good knowledge of many **programming languages**, including **C++, Python, Java, Prolog**

REFERENCES

- Aris Pagourtzis (pagour@cs.ntua.gr)

  National Technical University of Athens, School of Electrical and Computer Engineering
- Dimitris Fotakis (fotakis@cs.ntua.gr)

  National Technical University of Athens, School of Electrical and Computer Engineering
- Euripides Markou (emarkou@uoi.gr)

  University of Ioannina, Department of Computer Science & Engineering
- Michael Lampis (michail.lampis@dauphine.fr)

  Université Paris Dauphine, LAMSADE