

# Spyridon Tzimas

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✔ Algorithmic and Structural Graph Theory

✔ Classical and Parameterized Complexity Theory

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## Studies

**2014–Present** | Undergraduate Student

institution | Department of Computer Science and Engineering, University of Ioannina

**2016–2024** | Ph.D. in Mathematics

institution | Department of Mathematics, University of Ioannina

supervisor | Charis Papadopoulos (👤 [www.cse.uoi.gr/~charis/](http://www.cse.uoi.gr/~charis/)) (✉ [charis@uoi.gr](mailto:charis@uoi.gr))

thesis | Path and Cycle Hitting Problems: Algorithms and Complexity

grade | Excellent

**2013–2016** | Master's Degree in Mathematics

institution | Department of Mathematics, University of Ioannina

specialization | Computational Mathematics and Computer Science

supervisor | Charis Papadopoulos (👤 [www.cse.uoi.gr/~charis/](http://www.cse.uoi.gr/~charis/)) (✉ [charis@uoi.gr](mailto:charis@uoi.gr))

thesis | The Subset Feedback Vertex Set Problem on Interval Graphs and Permutation Graphs

score | 9.54/10.00

grade | Excellent

**2009–2013** | Bachelor's Degree in Mathematics

institution | Department of Mathematics, University of Ioannina

score | 8.51/10.00

grade | Excellent

## Publications

### In Journals

- Charis Papadopoulos and Spyridon Tzimas. Computing a Minimum Subset Feedback Vertex Set on Chordal Graphs Parameterized by Leafage. *Algorithmica*, 86:874–906 (2024). [www.doi.org/10.1007/s00453-023-01149-5](https://www.doi.org/10.1007/s00453-023-01149-5)
- Charis Papadopoulos and Spyridon Tzimas. Subset feedback vertex set on graphs of bounded independent set size. *Theoretical Computer Science*, 814:177–188 (2020). [www.doi.org/10.1016/j.tcs.2020.01.029](https://www.doi.org/10.1016/j.tcs.2020.01.029)
- Charis Papadopoulos and Spyridon Tzimas. Polynomial-time algorithms for the subset feedback vertex set problem on interval graphs and permutation graphs. *Discrete Applied Mathematics*, 258:204–221 (2019). [www.doi.org/10.1016/j.dam.2018.11.017](https://www.doi.org/10.1016/j.dam.2018.11.017)

### In Conference Proceedings

- Charis Papadopoulos and Spyridon Tzimas. Computing a Minimum Subset Feedback Vertex Set on Chordal Graphs Parameterized by Leafage. 33<sup>rd</sup> International Workshop on Combinatorial Algorithms (IWOCA 2022). *Lecture Notes in Computer Science (LNCS)*, 13270:466–479 (2022). [www.doi.org/10.1007/978-3-031-06678-8\\_34](https://www.doi.org/10.1007/978-3-031-06678-8_34)
- Charis Papadopoulos and Spyridon Tzimas. Subset Feedback Vertex Set on Graphs of Bounded Independent Set Size. 13<sup>th</sup> International Symposium on Parameterized and Exact Computation (IPEC 2018). *Leibniz International Proceedings in Informatics (LIPIcs)*, 115:20:1–20:14 (2019). [www.doi.org/10.4230/LIPIcs.IPEC.2018.20](https://www.doi.org/10.4230/LIPIcs.IPEC.2018.20)
- Charis Papadopoulos and Spyridon Tzimas. Polynomial-Time Algorithms for the Subset Feedback Vertex Set Problem on Interval Graphs and Permutation Graphs. 21<sup>st</sup> International Symposium on Fundamentals of Computation Theory (FCT 2017). *Lecture Notes in Computer Science (LNCS)*, 10472:381–394 (2017). [www.doi.org/10.1007/978-3-662-55751-8\\_30](https://www.doi.org/10.1007/978-3-662-55751-8_30)

## Funding

04/2024–10/2024	Contract
task	Research in the framework of project “THEMIS”
project	THEMIS: Modeling, Measuring and Mitigating Bias in Online Information Platforms
institution	Research Committee, University of Ioannina
action	2 <sup>nd</sup> Call for H.F.R.I. Research Projects to Support Faculty Members and Researchers
foundation	Hellenic Foundation for Research & Innovation ( <a href="http://www.elidek.gr/en/">www.elidek.gr/en/</a> )
2024	Travel Grant
event	Czech Summer School on Discrete Mathematics (CSSDM 2024)
institutions	Computer Science Institute, Charles University Department of Mathematics, University of West Bohemia
2023	Travel Grant
event	Advanced Course on the Foundations of Computer Science: Algorithmic Foundations of Data Analysis (ADFOCS 2023)
institution	Algorithms and Complexity Department, Max Planck Institute for Informatics
09/2021–10/2022	Contract
task	Maintenance, development and administration of scientific computation software for the Department of Mathematics in the framework of project “DIONI”
project	DIONI: Computing Infrastructure for Big Data Processing and Analysis, Subproject 1: Scientific work and cloud services
institution	Research Committee, University of Ioannina
programme	Competitiveness, Entrepreneurship and Innovation, NSRF 2014–2020, Invitation 111: Support of Regional Excellence
08/2017–04/2020	Scholarship
action	1 <sup>st</sup> Call for H.F.R.I. Scholarships to Ph.D. Candidates
foundation	Hellenic Foundation for Research & Innovation ( <a href="http://www.elidek.gr/en/">www.elidek.gr/en/</a> )
2012	Scholarship and Distinction Award for the performance in studies and ethos during the 2009–2010 academic year (1 <sup>st</sup> year of undergraduate studies) at the Department of Mathematics of the University of Ioannina
foundation	State Scholarships Foundation ( <a href="http://www.iky.gr/en/">www.iky.gr/en/</a> )

## Experience

09/2021–10/2022	Software Developer, Systems Administrator
laboratory	Laboratory of Applied and Computational Mathematics
institution	Department of Mathematics, University of Ioannina
2013–2019	Teaching Assistant
courses	Introduction to Computers (Compulsory Undergraduate Course) Introduction to Programming (Compulsory Undergraduate Course)
institution	Department of Mathematics, University of Ioannina

# Skills

**Programming Languages for**

- **Software Development:** C/C++, C#, Java, Python
- **Scientific Computation:** Fortran, Mathematica, MATLAB

**Parallel Computing APIs for**

- **CPUs:** OpenMP, MPI
- **Nvidia GPUs:** CUDA

**Python Libraries for**

- **Scientific Computation:** numpy/scipy
- **Data Science:** networkx, pandas, sklearn
- **Data Visualization:** matplotlib/seaborn

# References

## Charis Papadopoulos

 Associate Professor  
 Department of Mathematics  
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## Stavros D. Nikolopoulos

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# Participation

## 2023

- 18<sup>th</sup> International Conference on Advances in Computer Games (**ACG 2023**) held virtually.
- Algorithms, Approximation, and Learning in Market and Mechanism Design, a workshop organized by the Simons Laufer Mathematical Sciences Institute (**SLMath**), held both physically and virtually in Berkeley, California, USA.
- 24<sup>th</sup> International Symposium on Fundamentals of Computation Theory (**FCT 2023**) held both physically and virtually in Trier, Germany.
- 23<sup>rd</sup> Max-Planck Summer School Advanced Course on the Foundations of Computer Science (**ADFOCS 2023**) held in Saarbrücken, Germany.

## 2022

- High Performance Computing Autumn Academy 2022, organized by the University of Cambridge under the auspices of the Gianna Angelopoulos Programme for Science Technology and Innovation (**GAPSTI**), held both physically and virtually in Cambridge, England, UK.
- 28<sup>th</sup> Summer School on Dynamical Systems and Complexity, dedicated to the 70<sup>th</sup> birthday of **Prof. Athanassios Fokas**, held both physically and virtually in Chania, Greece.
- Genetic and Evolutionary Computation Conference 2022 (**GECCO 2022**) held both physically and virtually in Boston, Massachusetts, USA.
- HPC Workshop on Large Scale Scientific Computations, sponsored by **EuroCC@Greece** ([www.eurocc-greece.gr](http://www.eurocc-greece.gr)), held in Athens, Greece.
- 49<sup>th</sup> EATCS International Colloquium on Automata, Languages and Programming (**ICALP 2022**) held both physically and virtually in Paris, France.
- Second Congress of Greek Mathematicians (**SCGM 2022**) held in Athens, Greece.
- Graph Width Parameters: from Structure to Algorithms (**GWP 2022**) and Recent Advances on Total Search Problems, workshops of the 49<sup>th</sup> EATCS International Colloquium on Automata, Languages and Programming (**ICALP 2022**) held both physically and virtually in Paris, France.
- 48<sup>th</sup> International Workshop on Graph-Theoretic Concepts in Computer Science (**WG 2021**) held both physically and virtually in Tübingen, Germany.

- 19<sup>th</sup> International Conference on the Integration of Constraint Programming, Artificial Intelligence and Operations Research (**CPAIOR 2022**) held both physically and virtually in Los Angeles, California, USA.
- 33<sup>rd</sup> International Workshop on Combinatorial Algorithms (**IWOCA 2022**) held both physically and virtually in Trier, Germany.

## 2021

- Workshop on Graph Theory for Combinatorial Reconfiguration held virtually in Sendai, Japan.
- Autumn School on Optimization and Market Design held virtually in Trier, Germany.
- Thematic Mini-Conference on Computational Topology and Machine Learning, part of the Thematic Einstein Semester on Geometric and Topological Structure of Materials at MATH+, the Berlin Mathematics Research Center, held virtually in Berlin, Germany.
- Summer School on modern directions in discrete optimization and Workshop on tropical geometry and the geometry of linear programming, parts of the Trimester Program on Discrete Optimization at the Hausdorff Research Institute for Mathematics, held virtually in Bonn, Germany.
- 2021 e-Summer School on Mathematical Biology held virtually in Patras, Greece.
- 16<sup>th</sup> Athens Colloquium on Algorithms and Complexity (**ACAC '21**) held virtually in Athens, Greece.
- 2021 NTHU (Online) Summer School on Operations Research and Applications held virtually in Hsinchu, Taiwan.
- 22<sup>nd</sup> Max-Planck Summer School Advanced Course on the Foundations of Computer Science (**ADFOCS 2021**) held virtually in Saarbrücken, Germany.
- Topics in Algorithmic Graph Theory 2021 held virtually in Haifa, Israel.
- Graph Width Parameters: from Structure to Algorithms (**GWP 2021**), a workshop of the 48<sup>th</sup> International Colloquium on Automata, Languages and Programming (**ICALP 2021**) held virtually in Glasgow, Scotland, UK.
- 18<sup>th</sup> International Conference on the Integration of Constraint Programming, Artificial Intelligence and Operations Research (**CPAIOR 2021**) held virtually in Vienna, Austria.
- 47<sup>th</sup> International Workshop on Graph-Theoretic Concepts in Computer Science (**WG 2021**) held virtually in Warsaw, Poland.
- 6<sup>th</sup> Highlights of Algorithms (**HALG 2021**) held virtually in London, England, UK.

## 2020

- International Autumn School on Constraint Programming, Combinatorial Optimization and Machine Learning held virtually in Toulouse, France.
- 17<sup>th</sup> International Conference on the Integration of Constraint Programming, Artificial Intelligence and Operations Research (**CPAIOR 2020**) held virtually in Vienna, Austria.
- 5<sup>th</sup> Highlights of Algorithms (**HALG 2020**) held virtually in Zürich, Switzerland.
- 15<sup>th</sup> Athens Colloquium on Algorithms and Complexity (**ACAC '20**) held virtually in Athens, Greece.
- 47<sup>th</sup> International Colloquium on Automata, Languages and Programming (**ICALP 2020**) and 35<sup>th</sup> Annual ACM/IEEE Symposium on Logic in Computer Science (**LICS 2020**) held virtually in Saarbrücken, Germany.
- 15<sup>th</sup> International Computer Science Symposium in Russia (**CSR 2020**) held virtually in Ekaterinburg, Russia.

- Computability in Europe 2020: Beyond the horizon of computability (**CiE 2020**) held virtually in Salerno, Italy.
- 46<sup>th</sup> International Workshop on Graph-Theoretic Concepts in Computer Science (**WG 2020**) held virtually in Leeds, England, UK.

### 2019

- 44<sup>th</sup> International Symposium on Mathematical Foundations of Computer Science (**MFCS 2019**) held in Aachen, Germany.

### 2018

- 13<sup>th</sup> International Symposium on Parameterized and Exact Computation (**IPEC 2018**) held in Helsinki, Finland.
- First Congress of Greek Mathematicians (**FCGM 2018**) held in Athens, Greece.
- 2<sup>nd</sup> Conference of Young Researchers in the Branches of Mathematical Science held in Ioannina, Greece.

### 2017

- 3<sup>rd</sup> Parameterized Complexity Summer School (**PCSS 2017**) held in Vienna, Austria.