

Ioannis Markakis

PHD CANDIDATE IN COMPUTER SCIENCE

Fitzwilliam College, Storey's Way, Cambridge, CB3 0DG, UK

+44 7429 143342

ioannis.markakis@cl.cam.ac.uk

jmarkakis.github.io

jmarkakis

Ioannis Markakis



Education

University of Cambridge

PH.D. IN COMPUTER SCIENCE

- Thesis title: A computadic approach to ω categories
- Supervised by Prof. Jamie Vicary

Cambridge, UK

Oct. 2020 - Sep. 2024

University of Maryland

M.A. IN MATHEMATICS

- Thesis title: Cardinal powers and Silver's theorem
- Supervised by Prof. Michael Chris Laskowski
- Passed two qualifying exams at the Ph.D. level
- GPA: 4.0 / 4.0

College Park, Maryland, USA

Sep. 2017 - May 2020

University of Crete

PTYCHION IN MATHEMATICS

- Entered, and graduated top of my class
- GPA: 9.34 / 10.00
- Did an Erasmus exchange at University of Barcelona
- Completed 6 courses at a graduate level

Heraklion, Crete, Greece

Sep. 2013 - Jun. 2017

Publications

- [1] Thibaut Benjamin and Ioannis Markakis. *Duality for weak ω -categories*. 2024. arXiv: 2402.01611. preprint.
- [2] Ioannis Markakis. *Computads for Generalised Signatures*. 2023. arXiv: 2303.11978. preprint.
- [3] Christopher J. Dean, Eric Finster, Ioannis Markakis, David Reutter, and Jamie Vicary. *Computads for weak ω -categories as an inductive type*. 2022. arXiv: 2208.08719. preprint.
- [4] Dimitrios I. Dais and Ioannis Markakis. *Computing minimal generating systems for some special toric ideals*. 2017. arXiv: 1705.06339. preprint.

Presentations

- Apr 2023 **Peripatetic Seminar on Sheaves and Logic 107**, Computads for generalised signatures Athens, Greece
- Mar 2023 **Yorkshire and Midlands Category Theory Seminar 30**, Computads for generalised signatures Birmingham, UK
- Jun 2022 **Topology, Algebra and Categories in Logic 2022**, Computads for weak ω -categories Coimbra, Portugal

Awards

Fitzwilliam College

COLLEGE SENIOR SCHOLARSHIP

- Two scholarships for exceptional performance at doctoral studies

Cambridge, UK

Mar. 2022 - Nov. 2022

University of Cambridge

DEPARTMENTAL STUDENTSHIP

- Studentship for 3.5 years of doctoral studies

Cambridge, UK

Sep. 2020

Onassis Foundation

SCHOLARSHIP

- Scholarship for 4 years of doctoral studies

Cambridge, UK

Sep. 2020

University of Crete

"STILIANOS PICHORIDIS" AWARD

- Outstanding student award by the Department of Mathematics and Applied Mathematics

Heraklion, Crete, Greece

Nov. 2016

University of Crete

"CHRISANTHOS AND ANASTASIA KARIDI" SCHOLARSHIP

- Scholarship for the highest entrance score in the Department of Mathematics and Applied Mathematics

Heraklion, Crete, Greece

Jul. 2014

Eurobank

“MOVING EDUCATION FORWARD” AWARD

- Award for top performing senior high-school graduates
- Scored 19,099 / 20,000 (top 0.42% nationwide) in the Hellenic National Examinations.

Heraklion, Crete, Greece

Oct. 2013

Hellenic Mathematic Society

BRONZE MEDAL

- National Mathematical Olympiad “Archimedes”

Athens, Greece

May 2010

Teaching Experience

University of Cambridge

SUPERVISOR

- Tutored more than 35 students from various colleges in Discrete Mathematics, Logic and Proof, and Computation Theory

Cambridge, UK

Oct. 2020 - May 2024

University of Maryland

TEACHING ASSISTANT

- Was an independent instructor for College Algebra and Trigonometry
 - Gave lectures
 - Designed and graded quizzes
 - Graded homework and exams
- Was a Teaching Assistant for Precalculus, and Calculus I
 - Gave recitation lectures
 - Graded homework and exams
- Was grader for the courses
 - Introduction to Abstract Algebra
 - Axiomatic Set Theory
 - (Graduate) Logic I
 - (Graduate) Algebraic Geometry I

College Park, Maryland, USA

Sep. 2017 - May 2020

University of Crete

UNDERGRADUATE TEACHING ASSISTANT

- Gave recitation lectures for Foundations of Mathematics

Herakleion, Crete, Greece

Feb. 2014 - May 2016

Conferences

Dec. 2023 **2nd Categories Networking Project Meeting**

Glasgow, UK

Sep. 2023 **32nd YaMCATS Meeting**

Cambridge, UK

Aug. 2023 **Pittsposium**

Cambridge, UK

Jul. 2023 **Category Theory 2023**

Louvain-la-Neuve, Belgium

Jun. 2023 **31st YaMCATS Meeting**

Leeds, UK

Jun. 2023 **A Panorama of Homotopy Theory**

Oxford, UK

Apr. 2023 **11th Symposium on Compositional Structures**

Palaiseau, France

Apr. 2023 **Peripatetic Seminar in Sheaves and Logic 107**

Athens, Greece

Mar. 2023 **30th YaMCATS Meeting**

Birmingham, UK

Dec. 2022 **10th Symposium on Compositional Structures**

Edinburgh, UK

Sep. 2022 **28th YaMCATS Meeting**

Cambridge, UK

Sep. 2022 **9th Symposium on Compositional Structures**

Como, Italy

Jun. 2022 **Topology, Algebra and Categories in Logic 2022**

Coimbra, Portugal

May 2022 **27th YaMCATS Meeting**

Leeds, UK

Apr. 2022 **4th Midlands Graduate School in the Foundations of Computing Science**

Nottingham, UK

Feb. 2022 **Logic and higher structures**

Marseille, France

Jan. 2022 **26th YaMCATS Meeting**

Birmingham, UK

Aug. 2021 **Category Theory 20→21**

Genoa, Italy

Jul. 2021 **Applied Category Theory 2021 (Local Organiser)**

Cambridge, UK

Other Skills

Languages English, Spanish, Greek

Programming \LaTeX , Agda, Lean, Python