Curriculum Vitae

Konstantinos Tsaprounis

June 2024

RESEARCH INTERESTS: Set Theory, Mathematical Logic, Applications of Logic and Set Theory in other fields of mathematics

RECENT ACADEMIC POSITIONS

University of the Aegean, Samos, Greece *May 2024 – today*
Department of Mathematics
Assistant professor

University of Athens, Greece *Winter 2023 – 2024*
Inter-institutional graduate programme ALMA
Adjunct instructor

University of the Aegean, Samos, Greece *from Spring 2016 – 2017*
Department of Mathematics *until Spring 2022 – 2023*
Adjunct instructor *(except for Winter 2019 – 2020)*

University of Crete, Heraklion, Greece *Winter 2016 – 2017*
Department of Mathematics & Applied Mathematics
Adjunct instructor

EDUCATION

Doctorate in Pure and Applied Logic *December 2012*
University of Barcelona (UB), Barcelona, Spain
Supervisor: Joan Bagaria

Master of Science in Mathematics *2005 – 2007*
University of Illinois at Chicago (UIC), Chicago, USA

Diploma in Applied Mathematical and Physical Sciences
National Technical University of Athens, Greece *1999 – 2005*

JOURNAL PUBLICATIONS (REFEREED)

(1) **On extendible cardinals and the GCH**. *Archive for Mathematical Logic*, Vol. 52 (5–6), pp. 593–602, 2013 {`doi: 10.1007/s00153-013-0333-z`; `MR3072780`; `Zbl 1291.03099`}

(2) **Elementary chains and $C^{(n)}$-cardinals**. *Archive for Mathematical Logic*, Vol. 53 (1–2), pp. 89–118, 2014 {`doi: 10.1007/s00153-013-0357-4`; `MR3151400`; `Zbl 1305.03040`}

(3) **On resurrection axioms**. *The Journal of Symbolic Logic*, Vol. 80 (2), pp. 587–608, 2015 {`doi: 10.1017/jsl.2013.39`; `MR3377357`; `Zbl 1373.03100`}

(4) (with J. Bagaria, J.D. Hamkins, T. Usuba) **Superstrong and other large cardinals are never Laver indestructible**. *Archive for Mathematical Logic – Special issue dedicated to the memory of Richard Laver* (Eds. Matthew Foreman, Kenneth Kunen, Justin T. Moore), Vol. 55 (1–2), pp. 19–35, 2016 {`doi: 10.1007/s00153-015-0458-3`; `MR3453577`; `Zbl 1402.03073`}

(5) **Ultrahuge cardinals**. *Mathematical Logic Quarterly*, Vol. 62 (1–2), pp. 77–87, 2016 {`doi: 10.1002/malq.201400049`; `MR3472182`; `Zbl 1376.03044`}

(6) (with D. Asperó) **Long reals**. *Journal of Logic & Analysis*, Vol. 10:1, pp. 1–36, 2018 {`doi: 10.4115/jla.2018.10.1`; `MR3780585`; `Zbl 1386.12009`}

(7) **On $C^{(n)}$-extendible cardinals**. *The Journal of Symbolic Logic*, Vol. 83 (3), pp. 1112–1131, 2018 {`doi: 10.1017/jsl.2018.31`; MR3868042; Zbl 06966188}

(8) (with J. Cai) **On strenghtenings of superstrong cardinals**. *New York Journal of Mathematics*, Vol. 25, pp. 174–194, 2019 {`http://nyjm.albany.edu/j/2019/25-9.html`; MR3904884; Zbl 07013359}

(9) (with M. Anoussis, V. Felouzis) **Almost disjoint families and ultrapowers**. *Journal of Logic & Analysis*, Vol. 13:4, pp. 1–13, 2021 {`doi: 10.4115/jla.2021.13.4`; MR4263795; Zbl 07351279}

(10) (with C.D. Koutras, C. Moyzes, C. Nomikos, Y. Zikos) **On weak filters and ultrafilters: set theory from (and for) knowledge representation**. *Logic Journal of the IGPL*, Vol. 31 (1), pp. 68–95, February 2023 {`doi: 10.1093/jigpal/jzab030`; MR4565717; Zbl 07653983}

Publications in volumes, proceedings, etc.

(1) **An overview of the $C^{(n)}$-large cardinals** (extended abstract). *Proceedings of the 11th Panhellenic Logic Symposium (PLS11)*, Delphi, 2017

(2) **On mathematical applications of large cardinal axioms** (extended abstract). *1st Congress of Greek Mathematicians (FCGM)*, Athens, 2018 {`http://lfm.di.uoa.gr/abstracts/fcgm_Tsaprounis.pdf`}

(3) **Ramsey's theorem**. *Volume of the undergraduate seminar on Analysis & Geometry* (in Greek), Samos, 2019 {`https://myria.math.aegean.gr/psag/ekdoseis/psag2018-2019.pdf`}

(4) **Cantor's isomorphism theorem**. *Volume of the undergraduate seminar on Analysis & Geometry* (in Greek), Samos, 2023 {`https://myria.math.aegean.gr/psag/ekdoseis/psag2022-2023.pdf`}

Editorial work

- (with G. Barmpalias) **Proceedings of the 13th Panhellenic Logic Symposium** (PLS13), July 2021 {`http://panhellenic-logic-symposium.org/13/proceedings-2021.pdf`}

- (with G. Barmpalias) **Proceedings of the 13th Panhellenic Logic Symposium** (PLS13), Volume II, July 2022 {`http://panhellenic-logic-symposium.org/13/proceedings-2022.pdf`}

- (with N. Dafnis, A. Tsolomitis) **Volume of the undergraduate seminar on Analysis & Geometry** (in Greek), Samos, 2023 {`https://myria.math.aegean.gr/psag/ekdoseis/psag2022-2023.pdf`}

Recent teaching

University of the Aegean, Samos, Greece
Department of Mathematics
Undergraduate courses: *Elementary Set Theory, Coding Theory, Calculus II, Mathematical Logic, Special Topics of Mathematics: Axiomatic Set Theory, Special Topics of Mathematics: Topics in Mathematical Logic*

University of Athens, Greece
Inter-institutional graduate programme ALMA
Graduate course: *Set Theory*

University of Crete, Heraklion, Greece
Department of Mathematics & Applied Mathematics
Undergraduate course: *Set Theory*

Selected talks & presentations

- **Dedekind–Peano axioms, systems of natural numbers, and recursive definitions**. University of the Aegean, Samos, Greece, 02/2023.

- **Forcing and independence results**. Meeting on Mathematical Analysis, University of the Aegean, Samos, Greece, 12/2019.

- **Set theory and mathematical applications**. Meeting of the graduate program "Studies in Mathematics", University of the Aegean, Samos, Greece, 11/2019.
- **On mathematical applications of large cardinal axioms**. First Congress of Greek Mathematicians (FCGM-2018), University of Athens, Greece, 06/2018.
- **Long reals: on generalizing the construction of the real numbers**. 16th Panhellenic Conference on Mathematical Analysis, University of the Aegean, Samos, Greece, 05/2018.
- **The "P versus NP" problem**. University of the Aegean, Samos, Greece, 12/2017.
- **An overview of the $C^{(n)}$-large cardinals**. 11th Panhellenic Logic Symposium (PLS11), Delphi, Greece, 07/2017.
- **On ultrahuge and $C^{(n)}$-extendible cardinals**. University of Barcelona, Spain, 03/2016.
- **On ultrahuge cardinals**. University of Turin, Italy, 06/2015.
- **Superstrong and other large cardinals are not Laver indestructible**. Brazilian Logic Conference, Petrópolis, Brazil, 04/2014.
- **Elementary embeddings and very large cardinals**. University of São Paulo, Brazil, 04/2014.
- **Resurrection axioms**. Young Set Theory Workshop, Piemonte, Italy, 06/2013.
- **Elementary chains and $C^{(n)}$-cardinals**. University of East Anglia, Norwich, UK, 03/2013.
- **Extendible cardinals and the GCH**. University of Barcelona, Spain, 11/2012.

SELECTED CONFERENCES & MEETINGS

- **42nd Conference Weak Arithmetic Days (JAF42)**. University of the Aegean, Samos, Greece, 09/2023.
- **3rd Symposium on Mathematical Analysis**. University of the Aegean, Samos, Greece, 06/2023.
- **13th Panhellenic Logic Symposium (PLS13)**. Volos, Greece, 07/2022.
- **12th Panhellenic Logic Symposium (PLS12)**. Anogeia, Crete, Greece, 06/2019.
- **Reflections on Set Theoretic Reflection**. Montseny, Catalonia, 11/2018.
- **16th Panhellenic Conference on Mathematical Analysis**. University of the Aegean, Samos, Greece, 05/2018.
- **11th Panhellenic Logic Symposium (PLS11)**. Delphi, Greece, 07/2017.
- **Research program on *Large Cardinals and Strong Logics***. Centre de Recerca Matemàtica (CRM), Barcelona, Spain, 09/2016.
- **Workshop on the role of the higher infinite in mathematics and other disciplines**. Isaac Newton Institute, Cambridge, UK, 12/2015.
- **17th Brazilian Logic Conference (EBL 2014)**. Petrópolis, Brazil, 04/2014.
- **9th Panhellenic Logic Symposium (PLS9)**. National Technical University of Athens, Greece, 07/2013.
- **6th Young Set Theory Workshop**. Piemonte, Italy, 06/2013.
- **5th Young Set Theory Workshop**. CIRM, Luminy, France, 05/2012.
- **4th Young Set Theory Workshop**. Hausdorff Center, Bonn, Germany, 03/2011.
- **3rd Young Set Theory Workshop**. Raach, Austria, 02/2010.
- **ASL 2008 European Logic Colloquium**. Bern, Switzerland, 07/2008.
- **ULTRAMATH Conference**. University of Pisa, Italy, 06/2008.
- **ASL 2008 Annual Meeting**. University of California, Irvine, USA, 03/2008.
- **1st Graduate Conference on the Philosophy of Logic & Mathematics**. University of Cambridge, UK, 01/2008.
- **Kurt Gödel Centennial Celebration**. Institute for Advanced Studies, Princeton, USA, 11/2006.

Membership & service

- Member of the **Association for Symbolic Logic (ASL)** and of the **European Set Theory Society (ESTS)**
- Invited referee/reviewer for **The Journal of Symbolic Logic**, **Journal of Mathematical Logic**, **Mathematical Logic Quarterly**
- Member of scientific and organizing committee for **Reflections on Set Theoretic Reflection**, Montseny, Catalonia, 11/2018
- Member of scientific and organizing committee for **12$^{\text{th}}$ Panhellenic Logic Symposium** (PLS12), Anogeia, Crete, 06/2019
- Co-chair of scientific committee for **13$^{\text{th}}$ Panhellenic Logic Symposium** (PLS13), Volos, Greece, 07/2022
- Co-organizer of the **Undergraduate Seminar on Analysis & Geometry**, Department of Mathematics, Samos, Greece, Academic year 2021-2022
- Co-organizer of the **Undergraduate Seminar**, Department of Mathematics, Samos, Greece, Academic year 2022-2023
- Member of steering and scientific committee for **14$^{\text{th}}$ Panhellenic Logic Symposium** (PLS14), Thessaloniki, Greece, 07/2024
- Co-organizer of the **Undergraduate Seminar on Analysis & Geometry**, Department of Mathematics, Samos, Greece, Academic year 2023-2024