PERSONAL INFORMATION

Stamatis Dimopoulos

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EDUCATION

September 2014- July 2018

PhD in Mathematics
ISCED 8

Thesis title: "New aspects of strongly compact cardinals"

Faculty of Science Commendation

Institution: University of Bristol

Supervisors: Dr. Andrew Brooke-Taylor and Prof. Philip Welch

Synopsis: Strong compactness is one of the established large cardinal notions, but it presents a pathological behaviour. Its preservation through forcing extensions comes with serious obstacles and as a result, there are fundamental questions about it that remain open. The first goal of the thesis is to define a powerful version of strong compactness, called "Woodinised strong compactness" and explore its properties. We show that the new concept suffers from an "identity crisis", i.e. the first witness can be very small or very large depending on the model of set theory we work in, a behaviour similar to that of the first strongly compact cardinal. Secondly, we investigate the interaction between forcing and strong compactness. We show that assuming only partial supercompactness, it is possible to increase the size of the power set of a strongly compact cardinal and at the same time, control the value of some of the most important cardinal characteristics. We also show that assuming a supercompact cardinal, we can collapse it to a cardinal which is strongly compact with no degree of supercompactness and fully control its cardinal characteristics.

September 2012 - September 2013

MSc in Pure Mathematics and Logic
ISCED 7

Dissertation title: "Independence of the Continuum Hypothesis"

Institution: University of Manchester

Supervisor: Prof. Alex Wilkie

Modules included: Gödel's theorems, Group theory, Model theory, Set theory

September 2007 - March 2012

BSc in Mathematics
ISCED 6

Institution: University of Athens

Result: 7.79/10

September 2005 - June 2007

Greek Apolyterion
ISCED 3

Institution: 2nd Lyceum of Aghia Varvara, Greece

Result: 18.4/20

RESEARCH POSITIONS

January 2017 - Present

Visiting Researcher

University of Leeds, UK

RESEARCH INTERESTS

I am interested in the interaction between large cardinals and forcing, in particular studying how large cardinals are preserved or destroyed by various forcing notions. I would like to continue my research in this area, with a focus on strongly compact cardinals and their variations. At the same time, I have grown an interest in the applications of large cardinals to other areas of mathematics, such as topology and model theory.

PUBLICATIONS

Articles
- S. D. Woodin for strong compactness cardinals. Accepted for publication in JSL. (Preprint available at `https://arxiv.org/abs/1710.05743`)
- A. Apter, S. D. & Toshimichi Usuba. Strong compactness and the continuum function. In preparation.
- W. Boney, S. D., V. Gitman & M. Magidor. Model theoretic characterizations of large cardinals revisited. In preparation.

AWARDS AND FUNDING

- UK Engineering and Physical Sciences Research Council (EPSRC) DTA 14 EP/M506473/1 PhD studentship, 2014-2018.
- Junior member grant from the INI institute to attend "Mathematical, Foundational and Computational Aspects of the Higher Infinite" workshop in Cambridge, Autumn 2016.
- CRM grant to attend "Intensive Research Programme on Large Cardinals and Strong Logics" in Barcelona, September 2016.
- Bristol Alumni Foundation travel grant to speak at "MAMLS Logic Friday" in CUNY Graduate Center New York, 27 October 2017.

PERSONAL SKILLS

Administration
- Co-organised an one-day conference for graduate logic and philosophy students from Bristol, Gothenburg and Oxford.
- Co-organised a week-long research workshop on Set Theory in ICMS (Edinburgh), addressed to graduate students around the world. Involved in the search for funding sources and planning of the logistics, as well as the speakers and participants selection process and preparation of the booklet for the conference.

Teaching experience
- Academic tutoring for first year undergraduate mathematics courses including Analysis, Foundations and Proof, Group Theory.
- Academic tutoring for first year Calculus course, addressed to students of other disciplines.
- Marker for 3rd year mathematics courses including Set theory and Mathematical Logic.
- Planned reading groups for graduate set theory students and presented regularly in them.
- Have presented to both specialist and general mathematical audiences.
- Adept at making science accessible to non-specialists. Was praised for presentation in a local event inviting PhD students to show their research in general audience.

Relevant training
"Starting to teach": one-day session on how to support students in academic tutorials and small group teaching.

Mother tongue Greek

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C2
	International English Language Testing System (IELTS) 8.0				
French	A1	A2	A1	A1	A1
	Diplôme d' études en langue française (DELF) B2				

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
Common European Framework of Reference for Languages

Computer skills	− Competent user of LaTeX for the creation of articles, presentations and official documents.
	− Experience with HTML and Jekyll for the creation of webpages.

CONFERENCES AND PRESENTATIONS

Invited talks

July 18, 2018	Accessible categories and their connections, Leeds
	"Vopěnka's Principle and Woodin-like cardinals"
October 27, 2017	MAMLS Logic Friday, New York
	"Woodin for strong compactness cardinals, a new identity crisis"

Contributed talks

July 24, 2018	Logic Colloquium 2018, Udine
	"Strong compactness and the continuum function"
January 31, 2018	Winter School in Abstract Analysis: Section Set theory and Topology
	"Strong compactness and cardinal characteristics
March 7, 2017	Models and sets seminar, Leeds
	"Large cardinals with identity crises"

Posters

July 3-7, 2018	6th European Set Theory Conference, Budapest
	"Woodin for strong compactness cardinals"

Conferences attended

November 14-18, 2016	Applications of strong logics in other areas of Mathematics, Barcelona
September 26-30, 2016	Set-theoretical aspects of the model theory of strong logics, Barcelona
September 19-23, 2016	Advanced course on large cardinals and strong logics, Barcelona
June 13-17, 2016	Young set theory masterclass, Copenhagen
December 14-18, 2015	The role of the higher infinite in mathematics and other disciplines, Cambridge
October 25-30, 2015	8th Young Set Theory workshop, Jerusalem
August 24-28, 2015	5th European Set Theory Conference, Cambridge
January 27 - February 7, 2015	Winter School in Abstract Analysis: Section Set Theory and Topology, Hejnice

PROFESSIONAL MEMBERSHIPS

Student member of the Association of Symbolic Logic (ASL).

REFERENCES

Dr. Andrew Brooke-Taylor (PhD supervisor)
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