

Andrea Vaccaro

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Personal data

Name Andrea
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Current Position

2019–present **Postdoctoral fellow**, *Ben Gurion University of the Negev*, Be'er Sheva, Israel.

Past Positions and Titles

2015–2019 **Ph.D. in Mathematics**, *University of Pisa–York University*, Pisa–Toronto, (with honours).
2013–2015 **Master Degree in Mathematics**, *University of Pisa*, Pisa, 110/110 cum laude.
2010–2013 **Bachelor Degree in Mathematics**, *University of Torino*, Torino, 110/110 cum laude.
2007–2010 **High School Diploma**, *Liceo Classico Cavour*, Torino, 100/100.
(2005-2007 in Liceo Classico San Giuseppe, Rivoli).

Ph.D. thesis

Title *C^* -algebras and the Uncountable: a systematic study of the combinatorics of the uncountable in the noncommutative framework.*
Supervisor Prof. Ilijas Farah.
Cosupervisor Prof. Alessandro Berarducci.

Masters thesis

Title *C^* -algebras and B -names for complex numbers.*
Supervisor Prof. Matteo Viale.

Bachelor thesis

Title *Numeri di Fermat.*
Supervisor Prof. Umberto Cerruti.

Publications and preprints

Publications

- (1) *Obstructions to lifting abelian subalgebras of corona algebras*, accepted for publication in Pacific Journal of Mathematics (2019), <https://arxiv.org/abs/1611.06272>.
- (2) *Embedding C^* -algebras into the Calkin algebra*, joint with Ilijas Farah and Georgios Katsimpas, International Mathematics Research Notices (2019), <https://doi.org/10.1093/imrn/rnz058>.
- (3) *Trace spaces of counterexamples to Naimark's problem*, Journal of Functional Analysis 275 (2018), no. 10, 2794–2816, doi:10.1016/j.jfa.2018.06.018.
- (4) *Generic absoluteness and boolean names for elements of a Polish space*, joint with Matteo Viale, Bollettino Unione Matematica Italiana 10 (2017), no. 3, 293–319, doi:10.1007/s40574-017-0124-2.

Preprints

- (1) *Voiculescu's Theorem for nonseparable C^* -algebras*, arXiv preprint (2018), <https://arxiv.org/abs/1811.09352>.

Prizes and awards

2016 *Premio Aila 3+2 2016* for best Master Thesis in logic.

Scholarships and grants

Autumn 2018 Winner of *Bando Fondo Giovani* for teaching support, University of Pisa, Engineering.

Autumn 2017 Winner of *Bando Fondo Giovani* for teaching support, University of Pisa, Engineering.

Autumn 2016 Winner of *Bando Fondo Giovani* for teaching support, University of Pisa, Engineering.

Nov 2015– Ph.D. Scholarship, University of Pisa.

Oct 2018

Talks and seminars

Invited talks

23.11.2018 *Trace spaces of counterexamples to Naimark's problem*. Invited visitor, University of Waterloo, Ontario, Canada.

09.07.2018 *Embedding C^* -algebras into the Calkin algebra*. Invited visitor, University of Paris VII, Paris, France.

11.12.2017 *Trace spaces of counterexamples to Naimark's problem*. 2017 Canadian Mathematical Society Winter Meeting, University of Waterloo, Waterloo, Ontario, Canada.

24.08.2016 *C^* -algebras and B -names for complex numbers*. Scuola Estiva di Logica AILA 2016, Gargnano sul Garda, Italy.

Contributed talks and seminars

05.09.2019 *Nonseparable subalgebras of the Calkin algebra*. XXI Congresso UMI, University of Pavia, Pavia, Italia.

- 05.06.2019 *Why we need set theory (sometimes)*. Left to the Reader seminar (York University Mathematics Graduate seminar), York University, Toronto, Ontario, Canada.
- 29.05.2019 *Trivial Embeddings of the Calkin algebra*. GPOTS 2019, Texas A&M, College Station, Texas, USA.
- 27.02.2019 *An introduction to Naimark's problem*. MAP seminars, University of Pisa, Pisa, Italy.
- 04.02.2019 *Nonseparable C^* -algebras in the Calkin algebra*. SLAP seminars, University of Pisa, Pisa, Italy.
- 01.11.2018 *Nonseparable C^* -algebras in the Calkin algebra*. Operator Algebras Seminar, Fields Institute for Research in Mathematical Sciences, Toronto, Ontario, Canada.
- 08.06.2018 *Embedding C^* -algebras into the Calkin algebra*. Toronto Set Theory Seminar, Fields Institute for Research in Mathematical Sciences, Toronto, Ontario, Canada.
- 01.06.2018 *Embedding C^* -algebras into the Calkin algebra*. GPOTS 2018, Miami University, Oxford, Ohio, USA.
- 26.10.2017 *Trace spaces of counterexamples to Naimark's problem*. Operator Algebras Seminar, Fields Institute for Research in Mathematical Sciences, Toronto, Ontario, Canada.
- 27.09.2017 *Trace spaces of counterexamples to Naimark's problem*. XXVI AILA Meeting, Padova, Italy.
- 11.08.2017 *Trace spaces of counterexamples to Naimark's problem*. YMC*A, University of Copenhagen, Copenhagen, Denmark.
- 03.11.2016 *Some liftings of commutative families in corona algebras*. Operator Algebras Seminar, Fields Institute for Research in Mathematical Sciences, Toronto, Ontario, Canada.
- 02.02.2016 *C^* -algebras and B -names for complex numbers*. Winter School in Set Theory, Hejnicze, Czech Republic.
- 21.12.2015 *C^* -algebras and B -names for complex numbers*. Fifth Welcome Home Workshop, University of Torino, Torino, Italy.
- Nov–Dec 2015 *Zoologia dei Grandi Cardinali (I-II-III)*. SLAP seminars, University of Pisa, Pisa, Italy.

Visiting positions and shor-term visits

- Nov 2018 Invited visitor at University of Waterloo, Waterloo, Ontario, Canada.
- July 2018 Invited visitor at University of Paris VII, Paris, France.
- Feb 2016–present Visiting Member, Fields Institute, Toronto, Ontario, Canada.

Memberships and activities

- 2017–present Member of AILA (Associazione Logica Italiana e sue Applicazioni).
- 2015–present Member of GNSAGA (Gruppo Nazionale per le Strutture Algebriche, Geometriche e le loro Applicazioni), INdAM.

Workshops and conferences

2019

- 02.09.2019 *XXI Congresso UMI*, University of Pavia, Pavia, Italia.
07.09.2019
28.05.2019 *Great Plains Operator Theory Symposium 2019*, Texas A&M, College Station, Texas,
01.06.2019 USA.
13.05.2019 *50 Years of Set Theory in Toronto*, Fields Institute, Toronto, Ontario, Canada.
17.05.2019

2018

- 25.11.2018 *Model Theory and Operator Algebras*, Banff International Research Station, Banff,
30.11.2018 Alberta, Canada.
10.09.2018 *Set Theory Today*, Kurt Gödel Research Institute, Vienna, Austria.
14.09.2018
13.08.2018 *Young Mathematicians in C*-algebras*, KU Leuven, Leuven, Belgium.
17.08.2018
23.07.2018 *Logic Colloquium 2018*, University of Udine, Udine, Italy.
28.07.2018
25.06.2018 *11th Young Set Theory Workshop*, Bernoulli Center (EPFL), Lausanne, Switzerland.
29.06.2018
29.05.2018 *Great Plains Operator Theory Symposium 2018*, Miami University, Oxford, Ohio,
02.06.2018 USA.
30.04.2018 *Approximation Properties in Operator Algebras and Ergodic Theory*, IPAM (UCLA),
05.05.2018 Los Angeles, California, USA.

2017

- 08.12.2017 *2017 Canadian Mathematical Society Winter Meeting*, Waterloo University, Water-
11.12.2017 loo, Ontario, Canada.
25.09.2017 *XXVI Incontro di Logica AILA*, Padova, Italy.
28.09.2017
06.09.2017 *Descriptive Set Theory in Turin*, University of Torino, Torino, Italy.
08.09.2017
07.08.2017 *Young Mathematicians in C*-algebras*, University of Copenhagen, Copenhagen,
11.08.2017 Denmark.
10.07.2017 *10th Young Set Theory Workshop*, Edinburgh, UK.
14.07.2017
03.07.2017 *6th European Set Theory Conference*, Alfréd Rényi Institute of Mathematics of the
07.07.2017 Hungarian Academy of Sciences, Budapest, Hungary.
05.05.2017 *NCGOA Spring 2017*, Vanderbilt University, Nashville, Tennessee, USA.
11.05.2017
28.01.2017 *Winter School in Set Theory*, Hejnice, Czech Republic.
04.02.2017

2016

- 05.11.2016 *Appalachian Set Theory*, CMU, Pittsburgh, Pennsylvania, USA.
20.10.2016 *Set Theory Workshop*, UIC, Chicago, Illinois, USA.
23.10.2016
19.09.2016 *IRP Large Cardinals and Strong Logics*, CRM, Barcelona, Spain.
30.09.2016
21.08.2016 *Scuola Estiva di Logica AILA*, Gargnano sul Garda, Italy.
27.08.2016
17.07.2016 *Transfinite Methods in Banach Spaces and Algebras of Operators*, Bedlewo, Poland.
23.07.2016
13.06.2016 *9th Young Set Theory Workshop*, University of Copenhagen Copenhagen, Denmark.
17.06.2016
30.01.2016 *Winter School in Set Theory*, Hejnicze, Czech Republic.
06.02.2016

2015

- 21.12.2015 *Welcome Home 2015*, University of Torino, Torino, Italy.
22.12.2015
25.10.2015 *8th Young Set Theory Workshop*, Israel Institute of Advanced Studies, Jerusalem,
30.10.2015 Israel.
22.05.2015 *COMFORT 2015*, University of Pisa, Pisa, Italy.
23.05.2015

2014

- 14.04.2014 *XXV Incontro di Logica AILA*, Pisa, Italy.
17.04.2014

Teaching

- Autumn 2018 *Linear Algebra*, Bachelor in Architectural engineering, exam assistant.
Autumn 2017 *Linear Algebra*, Bachelor in Architectural engineering, exam assistant.
Autumn 2016 *Linear Algebra*, Bachelor in Architectural engineering, exam assistant.

Other activities

- 2015–2019 Organizer of *SLAP seminars*, the logic seminar organized by students at University of Pisa.
2014–2015 Member of *MaDE@DM*, a student association dedicated to the public dissemination of math, University of Pisa.

Languages

- Italian Mother tongue.
English Fluent.
French Elementary phrases and basics only.