

I am a postdoc at the Department of Basic and Applied Sciences for Engineering (SBAI), University of Rome “La Sapienza” (Italy) from June 1, 2021. The scientific director is prof. Roberto Conti.

I have been awarded a fellowship under the “FY2021 JSPS Postdoctoral Fellowship for Research in Japan (Standard)” to conduct my research for 24 months at the University of Tokyo, under the leadership of Prof. Yasuyuki Kawahigashi.

### *Experience*

- June 2021 - present      **Postdoctoral researcher** at the Department of Basic and Applied Sciences for Engineering (SBAI), University of Rome “La Sapienza” (Italy)  
Working on a project entitled “Cuntz-Pimsner algebras associated to complex vector bundles and standard subspaces in algebraic QFT”. Scientific director: Prof. Roberto Conti.
- May 2021 - July 2021      **Guest visiting researcher** at the Institute for Theoretical Physics, University of Leipzig (Germany)  
Working on a project regarding Entropy and QFT. Supported by the Deutsche Forschungsgemeinschaft (DFG) within the Emmy Noether grant “The quantum stress-energy tensor” CA1850/1-1PI, P.I. Dr. Daniela Cadamuro.
- January 2021 - April 2021      **Oberwolfach Leibniz Fellow** at the Mathematisches Forschungsinstitut Oberwolfach (Germany)  
Project title: Reflection positive representations and standard subspaces in algebraic QFT.
- September 2020 - December 2020      **Oberwolfach Leibniz Fellow** at the Mathematisches Forschungsinstitut Oberwolfach (Germany)  
Project title: Beurling–Lax type theorems and their connection with standard subspaces in Algebraic QFT.
- July 2019 - June 2020      **Postdoctoral researcher** at the Department of Mathematics, University of Rome “Tor Vergata” (Italy)  
Supported by European Research Council Advanced Grant no. 669240 QUEST - “Quantum Algebraic Structures and Models”, PI: Prof. Roberto Longo.

### *Education*

- 01 November 2015 - 30 January 2019      **Ph.D. in Mathematics and Computer Science** - XXXI ciclo - Joint Ph.D. program of Universities of Catania, Palermo and Messina (Italy)  
Thesis: Representable functionals and derivations on Banach quasi  $*$ -algebras.  
Advisor: prof. Camillo Trapani (University of Palermo)
- October 2013 - 22 July 2015      **Master degree in Mathematics with honors** - mentioned for career and E. Gugino prize - University of Palermo - Department of Mathematics and Computer Science  
Final project title: “On completions of a  $C^*$ -algebra with respect to a locally convex topology” (in Italian). Advisor: Prof. C. Trapani
- September 2010 - 26 July 2013      **Bachelor degree in Mathematics with honors** - University of Palermo - Department of Mathematics and Computer Science  
Final project title: “Orthogonal and hermitian spaces on finite cardinality fields” (in Italian). Advisor: Prof. C. Bartolone.
- September 2005 - July 2010      **Maturità scientifica with final mark 100/100** - Liceo Scientifico Statale A. Einstein - Palermo  
Corso sperimentale P.N.I.

## Research stays

- 19 to 20 July 2021 **Invited stay at the Department of Mathematics - FAU Erlangen-Nürnberg (Germany)**  
Research project concerning the reflection positive representations, standard subspaces and their applications.  
Financial support for travel and accommodation provided.
- 30 September to 02 October 2020 (moved online) **Invited Participant at 5-days Combinatorial and Geometric Discrepancy - BIRS at Banff Center for Arts and Creativity in Alberta, Canada.**
- 21 to 22 September 2020 (moved online) **Invited Participant at 5-days Workshop Women on Mathematical Physics - BIRS at Banff Center for Arts and Creativity in Alberta, Canada**  
Project title: “Locality and integrability in mathematical QFT and beyond”, co-led by Daniela Cadamuro, Sylvie Paycha and Kasia Rejzner.  
Accommodation and meals originally provided. Then, held online.
- 14 to 19 September 2020 **Invited stay at the Department of Mathematics - FAU Erlangen-Nürnberg (Germany)**  
Research project concerning the theory of Standard Subspaces and their applications  
Financial support for travel and accommodation provided.
- 15 July to 12 September 2020 **Invited stay at the Institute for Mathematics - Czech Academy of Sciences (Czech Republic)**  
Research project regarding Cuntz–Pimsner algebras for finite rank vector bundles twisted by a minimal homeomorphism.  
Financial support for accommodation provided.
- 18 to 26 July 2020 (cancelled due to Covid-19 emergency) **Invited stay at the Institute for Mathematics - Czech Academy of Sciences (Czech Republic)**  
Research project regarding regularity properties for Cuntz–Pimsner algebras and their classifiability.  
Financial support for accommodation provided.
- 12 to 18 July 2020 (participation cancelled due to Covid-19 emergency) **Focus Programme “Operator algebras and topological dynamics: amenability and beyond” - Department of Mathematics - University of Münster (Germany)**  
Financial support provided.
- 29 March to 4 April 2020 (cancelled due to Covid-19 emergency) **Invited stay at the Department of Mathematics - FAU Erlangen-Nürnberg (Germany)**  
Research project concerning the theory of Standard Subspaces and their applications.  
Financial support for travel and accommodation provided.
- 22 to 28 March 2020 (cancelled due to Covid-19 emergency) **Invited stay at the Institute for Theoretical Physics - University of Leipzig (Germany)**  
Research project regarding locality and integrability in mathematical QFT.  
Financial support for travel and accommodation provided.
- 19 to 25 January 2020 **Invited stay at the Department of Mathematics - Autonomous University of Barcelona (Spain)**  
Research project regarding crossed products as inductive limits of graph algebras  
Financial support for travel and accommodation provided.

- 12 to 20 October 2019 **Invited stay at the Department of Mathematics - Seoul National University (South Korea)**  
 Research project regarding regularity properties for Cuntz–Pimsner algebras and their classifiability.  
 Financial support for travel and accommodation provided.
- 16 to 23 April 2019 **Invited stay at the Department of Mathematics - University of Münster (Germany)**  
 Research project regarding regularity properties for Cuntz–Pimsner algebras and their classifiability.  
 Financial support for travel, accommodation and meals provided.
- 09 to 16 April 2019 **Invited Research stay at the Department of Mathematics - Radboud University of Nijmegen (Netherlands)**  
 Research project regarding regularity properties for Cuntz–Pimsner algebras and their classifiability.  
 Financial support for accommodation provided.
- 4 to 9 November 2018 **Invited Participant at 5-days Workshop Women on Operator Algebras - BIRS at Banff Center for Arts and Creativity in Alberta, Canada**  
 Project title: “Regularity properties for generalized crossed products”, co-lead by Karen Strung and Dawn Archey.  
 On Friday November 9, I gave a 10 minutes presentation about progress made on the group project.  
 Travelling support of 900€, accommodation and meals provided.
- 23 May to 19 July 2018 **Research period at the Department of Mathematics - National and Kapodistrian University of Athens (Greece)**  
 Under the supervision of Prof. Emeritus Maria Fragoulopoulou to work on a project with the title “Enveloping CQ\*-algebras of Banach quasi \*-algebras and their tensor products”.  
 Ph.D. Scholarship increased of 50% for 2 months.
- 17 September to 20 December 2017 **Research period at the Department of Mathematics - National and Kapodistrian University of Athens (Greece)**  
 Under the supervision of Prof. Emeritus Maria Fragoulopoulou to work on a project with the title “Tensor products of Banach quasi \*-algebras”.  
 Scholarship increased of 50% for 3 months.
- 2 to 30 July 2017 **Research period at the Department of Mathematics - Autonomous University of Barcelona (Spain)**  
 Under the supervision of Prof. Pere Ara to work on a project with the title “Flow equivalence, orbit equivalence and ordered cohomology”.  
 Scholarship increased of 50% for 1 months.

### *Advanced Schools attended*

- 14 to 19 May 2018 **NCGOA Spring Institute 2018 - C\*-algebras and Dynamics**  
 Introductory school on several topics concerning C\*-algebras and associated dynamics organized at Westfälische Wilhelms - Universität Münster (Germany).  
 Travelling support of 280€, accommodation provided.
- 26 February to 09 March 2018 **Introductory School - Thematic program “ $L^2$ -invariants and their analogues in positive characteristic”, Instituto de Ciencias Matematicas Madrid (Spain)**  
 Introductory school devoted to recent developments of the theory of  $L^2$ -invariants and their analogues in positive characteristic.  
 Accommodation provided.
- 13 to 20 January 2018 **46th Winter School in Abstract Analysis - Svatka (Czech Republic)**  
 Main topics of the Winter School: real analysis, descriptive set theory, measure theory, geometrical and topological properties of Banach spaces, etc.

- 2 to 6 October 2017 **Masterclass on Applications of the UCT for C\*-algebras - Department of Mathematics, University of Copenhagen (Denmark)**  
 This masterclass focuses on KK-theory and the Universal Coefficient Theorem, with a special regard towards applications to the structure and classification theory of nuclear C\*-algebras. Further topics, such as equivariant extensions of KK-theory for C\*-algebras over topological spaces or with group actions, will also be explored.  
 Accommodation provided.
- 16 to 20 October 2017 **Masterclass on Rigidity of C\*-algebras associated to dynamics - Department of Mathematics, University of Copenhagen (Denmark)**  
 This masterclass focuses on operator algebras and dynamical systems and, more specifically, the interrelation between the two. One of the ingredients is the notion of continuous orbit equivalence introduced by Matsumoto in the context of Cuntz-Krieger algebras and shifts of finite type.  
 Accommodation provided.
- 13 to 17 March 2017 **Advanced Course on Operator Algebras: Groupoids, Crossed Products and Rokhlin Dimension - IRP Operator Algebras: Dynamics and Interactions**  
 Introductory course during the IRP “Operator Algebras: Dynamics and Interactions”, organized by Centre de Recerca Matemàtica of the Autonomous University of Barcelona (Spain).  
 The topics include K-theory for C\*-algebras and crossed products, classification theory for C\*-algebras, Cartan subalgebras and groupoid C\*-algebras, Rokhlin dimension for dynamical systems.
- 17 to 25 May 2016 **NCGOA Spring Institute 2016 - HIM Trimester on von Neumann Algebras**  
 Introductory school on von Neumann algebras during the research trimester “von Neumann Algebras” organized by Hausdorff Research Institute for Mathematics in Bonn (Germany).
- 27 to 31 July 2015 **Scuola Calcolo Scientifico con Matlab - VII edition**  
 Participation to the 2nd module with the title “Tools and techniques for parallel computation, automatic learning and massive analysis of data with Matlab”, given at Department of Physics and Chemistry at University of Palermo.
- 28 July to 29 August 2014 **Summer School Scuola Matematica Interuniversitaria**  
 Courses given at Department of Mathematics and Computer Science at University of Perugia. Courses attended:  
 \* Functional Analysis given by Prof. Michael Jury with final mark A  
 \* Algebra given by Prof. Thomas Weigel with final mark A-

## Publications

- \* M. S. Adamo, K.-H. Neeb, J. Schober, *Reflection positivity and Hankel operators—the multiplicity free case*, arXiv:2105.08522, submitted for publication.
- \* M. S. Adamo, *About tensor products of Hilbert quasi \*-algebras and their representability properties*, Operator Theory 27 Conference Proceedings, 69-81, 2021.
- \* M. S. Adamo, *On some applications of representable functionals of a Banach quasi \*-algebra*, Operator theory, functional analysis and applications, 15-31, Oper. Theory Adv. Appl., 282, Birkhäuser/Springer, Cham, (2021).
- \* M. S. Adamo, M. Fragoulopoulou, *Tensor products of normed and Banach quasi \*-algebras*. J. Math. Anal. Appl., vol. 490, no. 2, 124323, 27 pp. 2020.
- \* M. S. Adamo and C. Trapani, *Unbounded derivations and \*-automorphisms groups of Banach quasi \*-algebras*. Ann. Mat. Pura Appl. (4), vol. 198, no. 5, 1711-1729, 2019.
- \* M. S. Adamo, *The interplay between representable functionals and derivations on Banach quasi \*-algebras*, Proceedings of the International Conference on Topological Algebras and Their Applications-ICTAA 2018, 48–59, Math. Stud. (Tartu), 7, Est. Math. Soc., Tartu, 2018.

- ★ M. S. Adamo, C. Trapani, *Representable and continuous functionals on a Banach quasi  $\ast$ - algebra*, *Mediterr. J. Math.* 14 (2017), no. 4, Paper No. 157, 25 pp.
- ★ M. S. Adamo, C. Vetro, *Fixed point and homotopy results for mixed multi-valued mappings in  $0$ - complete partial metric spaces*, *Nonlinear Analysis: Modelling and Control*, vol. 20, no. 2, 159-174, 2015.
- ★ Ph.D. Thesis: *Representable functionals and derivations on Banach quasi  $\ast$ -algebras*, University of Catania (Italy) 2019.

### *Fellowships and Awards*

- 2021 FY2021 JSPS Postdoctoral Fellowship for Research in Japan (Short Term) to conduct my research for 12 months at the University of Tokyo, under the leadership of Prof. Yasuyuki Kawahigashi. (Declined)
- 2021 FY2021 JSPS Postdoctoral Fellowship for Research in Japan (Standard) to conduct my research for 22 months at the University of Tokyo, under the leadership of Prof. Yasuyuki Kawahigashi.
- 2021 Oberwolfach Leibniz Fellowship to spend 13 weeks at the MFO (Germany).
- 2020 Oberwolfach Leibniz Fellowship to spend 12 weeks at the MFO (Germany)

### *Research projects and travel grants*

- ★ EWM grant to cover the registration fee at the 8th European Congress of Mathematics, Portorož, Slovenia - from 20 to 26 June 2021.
- ★ EMS grant for participation at the 5-days Workshop Women in Mathematical Physics held at Banff International Research Center, Banff Center for Arts and Creativity (Banff - Alberta, Canada) from 20 to 25 September 2020 - 400€ (Not used due to the Covid-19 pandemic).
- ★ Member of “Beyond Borders” project - Department of Mathematics at the University of Rome Tor Vergata (Italy) entitled “Interaction of Operator Algebras with Quantum Physics and Non-commutative Structure” - from 1 December 2019 until 31 December 2021- 10.000€, PI: Prof. Yoh Tanimoto (extended to 2021 due to the Covid-19 pandemic).
- ★ Grant INdAM - GNAMPA for participation as Invited Speaker to the conference Functional Analysis, Approximation Theory and Numerical Analysis 2020, held at University of Basilicata (Italy) from 7 to 10 July 2020 - 400€ (Returned for non-use due to the Covid-19 pandemic).
- ★ University of Palermo Ph.D. scholarship for the Ph.D. program in Mathematics and Computer Science XXXI ciclo - from 1 November 2015 until 31 October 2018 - 40.915,41€.
- ★ University of Palermo Traveling grant - Ph.D. program in Mathematics and Computer Science XXXI ciclo - from 1 November 2015 until 31 October 2018 - 4.800€.
- ★ University of Rome La Sapienza Ph.D. scholarship for the Ph.D. program in Mathematics and Computer Science XXXI ciclo (Declined).
- ★ Grant EMS for participation at the 5-days Workshop Women on Operator Algebras held at Banff International Research Center, Banff Center for Arts and Creativity (Banff - Alberta, Canada) from 04 to 09 November 2018 - 500€(Declined).
- ★ Grant INdAM - GNAMPA for participation as Invited Speaker to the International Conference on Banach Algebras, Harmonic Analysis and Operator Theory, at Sardar Patel University (India) from 20 to 22 November 2018 - 600€.
- ★ Grant INdAM - GNAMPA to participate to the Introductory School - Thematic program “ $L^2$ -invariants and their analogues in positive characteristic” at Instituto de Ciencias Matematicas of Madrid (Spain) - 200€.
- ★ Project INdAM - GNAMPA 2020 - PI: Camillo Trapani (Prolonged to 2021 due to Covid-19 pandemic).
- ★ Project INdAM - GNAMPA 2018 with title “Alcuni aspetti di teoria spettrale di operatori e di algebre; frames in spazi di Hilbert rigged” - PI: Camillo Trapani.
- ★ Project INdAM-GNAMPA 2017 with title “Problemi spettrali e di rappresentazione in quasi  $\ast$ - algebre di operatori” - PI: Camillo Trapani.
- ★ Project INdAM-GNAMPA 2016 with title “Quasi  $\ast$ -algebre di operatori: proprietà spettrali ed applicazioni” - PI: Camillo Trapani
- ★ Support given by many conferences, workshop and schools attended.

## Conference organization

★ Member of the Organizing committee for the International Conference on Topological Algebras and Applications 2020, held at the Department of Mathematics, University of Palermo, 7 to 11 September 2020. <http://www.math.unipa.it/ictaa2020/> (postponed to 2022 due to Covid-19 emergency).

## Invited contributions - 2021

★ Preregistered talk at the Special Section on Topological Algebras, 54th Congress of the Mexican Mathematical Society (online) - 18 to 22 October 2021.

Talk of 30 minutes entitled “Representable functionals for a class of locally convex quasi  $*$ -algebras”.

★ Online seminar at the Operator Algebras group seminars - Activities of the Center for Mathematics and Theoretical Physics, University of Rome “Tor Vergata” (online) - 14 July 2021.

Talk of 60 minutes entitled “Reflection positive representations and Hankel operators in the multiplicity free case”.

★ Online seminar at the Lie group seminars Erlangen (online) - 05 May 2021.

Talk of 60 minutes entitled “On the classification of reflection positive representations for the groups  $Z$  and  $R$ ”.

## Invited contributions - 2020

★ Online seminar at the Groups, Operators, and Banach Algebras Webinar - 07 December 2020.

Talk of 60 minutes entitled “The problem of continuity for representable functionals on Banach quasi  $*$ -algebras”.

★ Seminar at the Set Theory & Analysis Seminars - 08 September 2020, Institute of Mathematics, Czech Academy of Sciences (Prague, Czech Republic).

Talk of 90 minutes entitled “Cuntz-Pimsner algebras associated to finite rank vector bundles twisted by a minimal homeomorphism”.

Accommodation and traveling expenses provided.

★ Speaker at the Functional Analysis, Approximation Theory and Numerical Analysis Conference (FAATNA 2020) in the section “Operator Algebras and Functional Analysis Methods for Applications” - from 7 to 10 July 2020, University of Basilicata, Campus in Matera (Matera, Italy)

Talk of 20 minutes (postponed to 2022 due to Covid-19 emergency)

★ Seminar at the Laboratory in Algebra, Geometry and Topology (LIGAT) - Autonomous University of Barcelona (Bellaterra, Spain) - 23 January 2020.

Talk of 60 minutes entitled “Cuntz-Pimsner algebras associated to  $C^*$ -correspondences over commutative  $C^*$ -algebras.”

Accommodation and traveling expenses provided.

## Invited contributions - 2019

★ Speaker at “Operator Algebras in Quantum Field Theory and Quantum Probability” - from 4 to 7 December 2019, Department of Mathematics, University of Rome “Tor Vergata” (Italy)

Talk of 35 minutes entitled “Cuntz-Pimsner algebras associated to  $C^*$ -correspondences over commutative  $C^*$ -algebras”.

★ Seminar at the Operator Algebras Seminars - 17 October 2019, Department of Mathematics, Seoul National University (Seoul, South Korea).

Talk of 30 minutes entitled “On the applications of representable and continuous functionals on Banach quasi  $*$ -algebras to their tensor products”.

Accommodation and traveling expenses provided.

## Invited contributions - 2018

★ Speaker at International Meet on Analysis - 24 November 2018, Department of Mathematics, University of Delhi (Delhi, India)

Talk of 45 minutes entitled “Tensor products of Banach quasi  $*$ -algebras and the problem of continuity for representable functionals”.

Accommodation and meals provided, INdAM travelling grant of 600€.

★ Speaker at International Conference on Banach Algebras, Harmonic Analysis and Operator Theory - from 20 to 22 November 2018, Department of Mathematics, Sardar Patel University (Vallabh Vidyanagar, Distr. of Anand - Gujarat, India)

Talk of 30 minutes entitled “*About the continuity for representable functionals on Banach quasi \*-algebras*”.

Accommodation and meals provided, local travelling expenses, INdAM travelling grant of 600€.

### *Conferences, Workshops, etc. - 2021*

★ Seminal Interactions between Mathematics and Physics II, 28 September to 01 October 2021, Accademia Nazionale dei Lincei, Rome (Italy).

★ Operator Algebras and Applications - On the occasion of the 88th birthday of Masamichi Takesaki - 26 August 2021, The University of Tokyo (Japan), online.

★ International Workshop on Operator Theory and Applications 2021 - 16 to 20 August 2021, Lancaster University (United Kingdom), online.

★ Young Mathematicians in  $C^*$ -algebras 2021, 2 to 6 August 2021 (afternoons) and hosted by the University of Münster (Germany), online.

★ International Conference on Topological Algebras and Applications 2021 - 7 to 9 July 2021, hosted by the University of Tallinn (Estonia), online.

★ Groups meet  $C^*$ -algebras, in celebration of Siegfried Echterhoff’s 60th birthday - 28 June to 9 July 2021, hosted by the University of Münster (Germany), online.

★ 8th European Congress of Mathematics - 20 to 26 June 2021, hosted in Portorož (Slovenia), online.

★ Special Week on Operator Algebras 2021 - 7 to 11 June 2021, hosted by the Research Center for Operator Algebras, East China Normal University, Shanghai (China), online.

★ Entropy and QFT - 19 to 20 May 2021, hosted by the University of Rome “Tor Vergata” (Italy), online.

★ Great Plains Operator Theory Symposium 2021 - 10 to 14 May 2021, hosted by Washington University in St. Louis (USA), online.

### *Conferences, Workshops, etc. - 2020*

★ Virginia Operator Theory and Complex Analysis Meeting - 3 October 2020, Online.

★ The First WSU-IPM Joint Workshop on Operator Algebras - 30 September to 02 October 2020, Online.

★ Young Mathematicians in  $C^*$ -algebras 2020 - 10 to 15 August 2020, Department of Mathematics, University of Münster (Germany) (*cancelled due to Covid-19 emergency, edition 2021*).

★ Functional Analysis, Approximation Theory and Numerical Analysis Conference 2020 - 7 to 10 July 2020, University of Basilicata, Campus in Matera (Matera, Italy). (*postponed to 2022 due to Covid-19 emergency*).

★ Seminal interactions between Mathematics and Physics II - 30 June to 2 July 2020, Accademia Nazionale dei Lincei, Rome (Italy). (*postponed to 2021 due to Covid-19 emergency, edition 2021*).

★ 45th LQP workshop (Local Quantum Physics series of workshops) - 17 to 19 June 2020, University of Paderborn (Germany). (*moved online due to Covid-19 emergency*).

★ Fifty years of Tomita-Takesaki Theory - 15 to 19 June 2020, Department of Mathematics, University of Tokyo (Japan). (*postponed due to Covid-19 emergency*).

★ The 48th Canadian Operator Symposium - 25 to 29 May 2020, The Fields Institute, Toronto (Ontario, Canada). (*moved online due to Covid-19 emergency*).

### *Conferences, Workshops, etc. - 2019*

★ Operator Algebras in Quantum Field Theory and Quantum Probability - 4 to 7 December 2019, Department of Mathematics, University of Rome “Tor Vergata” (Italy) - local participant.

★ Young Mathematicians in  $C^*$ -algebras 2019 - 5 to 10 August 2019, Department of Mathematics, University of Copenhagen (Denmark) - accommodation provided.

★ International Workshop on Operator Theory and Applications 2019 - 22 to 26 July 2019, Instituto Superior Tecnico of Lisbon and University of Lisbon (Portugal).

★ goMATH - Women in Mathematics - Symposium - 12 to 14 March 2019, Department of Mathematics, ETH Zürich (Switzerland).

### *Conferences, Workshops, etc. - 2018*

★ 84th Annual Conference of Indian Mathematical Society - 27 to 30 November 2018, Matrika Auditorium, Shri Mata Vaishno Devi University (Katra - Jammu & Kashmir, India) - local travel expenses, accommodation and meals provided.

★ International Meet on Analysis - 24 November 2018, Department of Mathematics, University of Delhi (Delhi, India) - local travel expenses, accommodation, meals provided.

★ International Conference on Banach Algebras, Harmonic Analysis and Operator Theory - 20 to 22 November 2018, Department of Mathematics, Sardar Patel University (Vallabh Vidyanagar, Distr. of Anand - Gujarat, India) - local travel expenses, accommodation and meals provided.

★ Joint meeting of Italian Mathematical Union, Italian Society of Industrial and Applied Mathematics and Polish Mathematical Society - 17 to 20 September 2018, Wrocław University of Science and Technology (Poland).

★ Young Mathematicians in  $C^*$ -algebras 2018 - 13 to 17 August 2018, Auditoriacomplex, KU Leuven (Belgium) - accommodation provided.

★ Young Women in  $C^*$ -algebras 2018 - 11 to 12 August 2018, Van den Heuvel Institute, KU Leuven (Belgium) - accommodation provided.

★ International Congress of Mathematicians 2018 - 1 to 9 August 2018, Riocentro in Rio de Janeiro (Rio de Janeiro, Brazil).

★ ICM Operator Algebras Satellite Conference - 26 to 30 July 2018, Hotel Palace Praia in Florianopolis (Santa Catarina, Brazil).

★ 27th International Conference in Operator Theory - 2 to 6 July 2018, West University of Timisoara (Romania) - waived participation fee and accommodation provided.

★ First Congress of Greek Mathematicians 2018 in occasion of the 100th anniversary of Hellenic Mathematical Society - 25 to 30 June 2018, Department of Mathematics, National and Kapodistrian University of Athens (Greece) - local participant.

★ Great Plains Operator Theory Symposium 2018 - 29 May to 2 June 2018, Miami University, Oxford (Ohio, United States of America) - travel expenses and accommodation provided.

★ 50th Anniversary meeting of North British Functional Analysis Seminars - 12 to 14 April 2018, International Centre for Mathematical Sciences, Edinburgh (United Kingdom).

★ Lancaster Analysis Days 2018 - 10 and 11 April 2018, Department of Mathematics and Statistics, University of Lancaster (United Kingdom).

★ International Conference on Topological Algebras and Applications 2018 - 25 to 28 January 2018, University of Tallinn (Estonia).

### *Conferences, Workshops, etc. - 2017*

★ Mathematical Analysis in Athens, in honour of Prof. Katavolos and Prof. Nestoridis - 15 to 19 December 2017, Department of Mathematics, National Kapodistrian University of Athens (Greece), local participant.

★ International Workshop on Operator Theory and Applications 2017 - 14 to 19 August 2017, TU Chemnitz (Germany).

★ Young Mathematicians in  $C^*$ -algebras 2017 - 7 to 11 August 2017, Department of Mathematics, University of Copenhagen (Denmark) - accommodation provided.

★ Young Women on  $C^*$ -algebras 2017 - from 5 to 6 August 2017, Department of Mathematics, University of Copenhagen (Denmark) - accommodation provided.

★ Barcelona Conference in  $C^*$ -algebras: Structure, Classifications and Dynamics - 19 to 23 June 2017, Centre de Recerca Matemàtica, Universitat Autònoma de Barcelona (Spain).

★ INdAM Day 2017 - 7 June 2017, Aula Magna of University of Messina (Italy).

★ Workshop on  $C^*$ -algebras and Dynamical Systems - 20 to 24 March 2017, Centre de Recerca Matemàtica, Universitat Autònoma de Barcelona (Spain).

### *Conferences, Workshops, etc. - 2016*

★ A Third Day on Nonlinear Differential Problems - 26 September 2016, Department of Mathematics and Computer Science, University of Palermo (Italy) - local participant.

★ A Second Day on Nonlinear Differential Problems - 5 September 2016, Department of Mathematics and Computer Science, University of Palermo (Italy) - local participant.

★ Young Mathematicians in  $C^*$ -algebras 2016 - 25 to 29 July 2016, Mathematical Institute, University of Münster (Germany).

★ Convegno Scientifico GNAMPA - INdAM 2016 - 20 to 23 June 2016, Hotel Belvedere di Montecatini Terme (Pistoia, Italy) - accommodation provided.

★ International Conference in Memory of Filippo Chiarenza: A day on PDE's - 14 June 2016, Department of Mathematics and Computer Science, University of Catania (Italy).

★ A Day on Nonlinear Differential Problems - 29 February 2016, Department of Mathematics and Computer Science, University of Palermo (Italy) - local participant.

★ Workshop on Hopf Algebras and Related Topics - 21,22 January 2016, Department of Mathematics “Giuseppe Peano”, University of Torino (Italy).

★ XVI Convegno della Società Italiana di Storia delle Matematiche - 12 to 14 November 2015, University of Palermo (Italy) - local participant.

### *Contributed talks, posters, and seminars - 2021*

★ 07 July 2021: talk “On tensor products of normed and Banach quasi  $*$ -algebras” - International Conference on Topological Algebras and Applications 2021, University of Tallinn (Estonia), online.

★ 22 June 2021: talk “Cuntz–Pimsner algebras associated to finite rank vector bundles twisted by a homeomorphism” - 8th European Congress of Mathematics, Portorož (Slovenia), online.

### *Contributed talks, posters, and seminars - 2020*

★ 28 May 2020: talk “Cuntz-Pimsner algebras associated to  $C^*$ -correspondences over commutative  $C^*$ -algebras” - The 48th Canadian Operator Symposium, Toronto (Ontario, Canada). (moved online due to Covid-19 emergency).

### *Contributed talks, posters, and seminars - 2019*

★ 10 August 2019: talk “Structure of the generalized crossed product: the Cantor case” - Young Mathematicians in  $C^*$ -algebras 2019, Copenhagen (Denmark)

★ 23 July 2019: talk “Representable and continuous functionals on Banach quasi  $*$ -algebras and applications to tensor product” - International Workshop on Operator Theory and Applications 2019, Lisbon (Portugal).

★ 14 March 2019: flash talk (3 minutes) and poster “Representable and continuous functionals on Banach quasi  $*$ -representable” - goMATH - Women in Mathematics - Symposium, ETH Zürich (Switzerland).

### *Contributed talks, posters, and seminars - 2018*

★ 29 November 2018: poster “Tensor products of Banach quasi  $*$ -algebras and the problem of continuity for representable functionals - 84th Annual Conference of Indian Mathematical Society, Shri Mata Vaishno Devi University (Katra - Jammu & Kashmir, India)

★ 31 October 2018: seminar “The problem of continuity for representable functionals on Banach quasi  $*$ -algebras - University of Rome Tor Vergata (Italy).

★ 19 September 2018: talk “Unbounded derivations and  $*$ -automorphisms groups on Banach quasi  $*$ -algebras” - Joint meeting of Italian Mathematical Union, Italian Society of Industrial and Applied Mathematics and Polish Mathematical Society, Wrocław (Poland).

★ 12 August 2018: talk “A generalized version of Bratteli–Robinson Theorem for Banach quasi  $*$ -algebras” - Young Women in  $C^*$ -algebras, Leuven (Belgium).

- ★ 3 August 2018: poster “*Representable and continuous functionals on Banach quasi  $\ast$ -algebras*” - International Congress of Mathematicians 2018, Rio de Janeiro (Rio de Janeiro, Brazil).
- ★ 2 July 2018: talk “*Tensor products of Banach quasi  $\ast$ -algebras and the problem of continuity for representable functionals*” - 27th International Conference on Operator Theory, Timisoara (Romania).
- ★ 29 May 2018: talk “*Unbounded derivations and  $\ast$ -automorphisms groups of Banach quasi  $\ast$ -algebras*” - Great Plans Operator Theory Symposium 2018, Miami University (Oxford, Ohio, United States of America).
- ★ 26 January 2018: talk “*Derivations and representable functionals over Banach quasi  $\ast$ -algebras*” - International Conference on Topological Algebras and Applications 2018, University of Tallinn (Estonia).
- ★ 15 January 2018: talk “*Unbounded derivations on Banach quasi  $\ast$ -algebras*” - 46th Winter School in Abstract Analysis, Svatka (Czech Republic).

### *Contributed talks, posters, and seminars - 2017*

- ★ 29 November 2017: seminar “*Derivations on Banach quasi  $\ast$ -algebras*” - National and Kapodistrian University of Athens (Greece).
- ★ 22 November 2017: seminar “*A survey on the problem of continuity for representable functionals on Banach quasi  $\ast$ -algebras*” - National and Kapodistrian University of Athens (Greece).
- ★ 06 November 2017: seminar “*Representable functionals on Banach quasi  $\ast$ -algebras and the problem of continuity*” - Eötvös Loránd University, Budapest (Hungary).
- ★ 9 August 2017: poster “*Derivations on Banach quasi  $\ast$ -algebras*” - Young Mathematicians in  $C^*$ -algebras, Copenhagen (Denmark).
- ★ 5 August 2017: talk “*Representable functionals on Banach quasi  $\ast$ -algebras*” - Young Women on  $C^*$ -algebras, Copenhagen (Denmark).
- ★ 20 June 2017: talk “*Automatic continuity of representable functionals on a Banach quasi  $\ast$ -algebra*” - Barcelona Conference on  $C^*$ -algebras, Barcelona (Spain).

### *Contributed talks, posters, and seminars - 2016*

- ★ 28 November 2016: seminar “*Representable functionals on Banach quasi  $\ast$ -algebras*” - Universitat Autònoma de Barcelona (Spain).
- ★ 5 September 2016: talk “*Topological quasi  $\ast$ -algebras, distributions and differential operators*” - A Second Day on Nonlinear Differential Problems, Palermo (Italy).
- ★ 29 July 2016: talk “ *$CQ^*$ -algebras and their physical applications: a survey*” - Young Mathematicians in  $C^*$ -algebras, Münster (Germany).
- ★ 28 July 2016: poster with title “*Quasi  $\ast$ -algebras of operators and their representations*” - Young Mathematicians in  $C^*$ -algebras, Münster (Germany).

### *Teaching*

- ★ 30 hours for Mathematical Analysis 1 (Bachelor in Computer Science and Automata Engineering, University of Rome “La Sapienza”), taught together with Prof. Roberto Conti, A.Y. 2021/2022, period: 27 September 2021 - 23 December 2021.
- ★ 60 hours for Mathematical Analysis 1 (Bachelor in Computer Science and Automata Engineering, University of Rome “La Sapienza”), taught together with Prof. Roberto Conti, A.Y. 2019/2020, period: 23 September 2019 - 20 December 2019.

### *Teaching assistant*

- ★ 30 hours for Mathematical Analysis 1 (Bachelor in Mathematics, University of Palermo), course taught by Prof. Camillo Trapani (1st Module) and by Prof. Giulio Ciraolo (2nd Module) A.Y. 2016/2017, period: October 2016 - May 2017.
- ★ 21 hours for Mathematical Analysis 1 (Bachelor in Mathematics, University of Palermo), course taught by Prof. Camillo Trapani A.Y. 2015/2016, period: October 2015 - January 2016.
- ★ 18 hours for Geometry 2 (Bachelor in Mathematics, University of Palermo), course taught by Prof. Claudio Bartolone A.Y. 2014/2015, period: October 2014 - January 2015.

\* 19 hours for Geometry 1 (Bachelor in Mathematics, University of Palermo), course taught by Dr. Alfonso Di Bartolo, A.Y. 2013/2014, period: February 2014 - May 2014.

### *Women in Mathematics*

- \* Mentorship Training: Diversity, Equity and Inclusion Workshop - 27 August 2021, online
- \* Contribution to the video “Words of Women in Mathematics in the Time of Corona” - 12 May 2021, online launching of the Movie at the International Centre for Mathematical Sciences, Edinburgh, Scotland.
- \* Member of Operator Algebras Mentor Network as a Mentee.

### *Languages*

Languages: Italian (Mother tongue), English (Upper intermediate), Catalan (Intermediate), German (Basic), French (Basic).

- \* International English Language Testing System (IELTS Academic) - Score: Reading 7.0, Writing 6.0, Listening 7.0, Speaking 6.0, Overall score: 6.5 - April 2018
- \* Certificate of Attendance - Course of German language - Level A1 - Goethe Zentrum - September 2013
- \* Trinity College London - Graded Examination in Spoken English - Grade 10/12 - May 2010

### *Other skills and experience*

- \* Communication skills: Thanks to the tutoring and student representative, I matured communication skills that left me to communicate proficiently with Bachelor and Master students.
- \* Organizational and management skills: To graduate as soon as I could, both at the Bachelor and Master, I developed organizational and management skills to organize at best the work to do.
- \* Professional skills: I helped students of the Bachelor in Mathematics and other scientific Bachelor degrees (Biology, Architecture and Design, Medicine, Engineering, etc.) to pass Mathematics and Physics exams.
- \* Computer skills: Good knowledge of the operative systems iOS, Windows and Linux; the software Latex for writing scientific texts; internet and email; C and Pascal programming language; the software Matlab, Geogebra and Cabri.
- \* Other skills: The ability to read technical texts in French and German, even though the knowledge of French and German is not at high levels. Skill acquired thank to the study of reference books for topics of courses attended during the Bachelor and the Master.

I studied singing (Estill Voice Training, or better known as Estill Voice Craft) for 1 year and (almost) half, from December 2015 to March 2017.

I was a “Supertutor” for the Italian website for student tutoring Skuola.net, since I meet the following requirements to get the status of a supertutor: loyalty, quality, reliability and reactivity.

### *Associations of which I am a member*

- \* From January 2016 member of Gruppo Nazionale per l’Analisi Matematica, la Probabilità e le loro Applicazioni - INdAM (National Group for Mathematical Analysis, Probability and their applications), section: Functional and Harmonic Analysis.
- \* From February 2020 member of the European Women in Mathematics.

October 15, 2021

Maria Stella Adamo