

Tommaso Traetta's Curriculum Vitae

Personal Details

Name: Tommaso Traetta

Office:

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Education

2010. PhD, Università degli Studi di Perugia, Italy

2006. MSc, Università del Salento, Italy

2004. BSc, Università del Salento, Italy

Previous and Current Positions

01.12.2018 – present. Assistant Professor (RTDB) – University of Brescia, Italy.

16.04.2018 – 30.11.2018. Assistant Professor (RTDA) – University of Padova, Italy.

01.12.2017 – 31.03.2018. Post-doctoral Research Fellow – Ryerson University, Toronto (ON) Canada.

01.12.2015 – 30.11.2017. Marie-Curie Fellow – Ryerson University, Toronto (ON) Canada & Università di Perugia, Italy.

01.10.2015 – 30.11.2015. Post-doctoral Research Fellow (INDAM) – Ryerson University, Toronto (ON) Canada.

01.09.2014 – 31.08.2015. Post-doctoral Research Fellow – Ryerson University, Toronto (ON) Canada.

01.09.2013 – 31.08.2014. Post-doctoral Research Fellow – Università di Perugia, Italy.

01.11.2010 – 31.10.2012. Post-doctoral Research Fellow – Sapienza, University of Rome.

2008 – 2009. Visiting Scientist – McMaster University, Hamilton (ON) Canada.

Habilitations and Awards

- **Italian National Scientific Habilitation for the associate professorship**, awarded by The Italian Ministry of Education, University and Research (MIUR). Competition sector 01/A2 – GEOMETRIA E ALGEBRA
- **Kirkman Medal 2013** by the Institute of Combinatorics and its Applications *for outstanding contributions to combinatorics and its applications*

Conference Organization

01–02.02.2018. "Discretaly – A workshop in Discrete Mathematics", Sapienza University of Rome, Italy.

12–15.06.2017. Two minisymposia "In honour of the work of Alex Rosa" at "CanADAM 2017", Ryerson University, Toronto (ON) Canada.

Editorial Work

2019 – present. Managing Editor of *Ars Combinatoria*

Teaching Activities

2019 – present. Bachelor's Degrees in Engineering, University of Brescia, Italy. Course: Linear Algebra and Geometry.

2017 – 18. Lecturer – Bachelor's Degree in Engineering and Management, Faculty of Engineering, University of Padova, Italy. Course: Linear Algebra and Geometry

2017. Lecturer – Bachelor's and Master Degree in Computer Science, Università degli Studi di Verona, Italy. Course: An Introduction to Orthogonal Arrays and their applications with Codes (Language: English)

2013 – 14. Lecturer – Bachelor's Degree in Mechanical Engineering, Faculty of Engineering, University Roma Tre, Rome, Italy. Course: Linear Algebra.

2012 – 13. Lecturer – Bachelor's Degree in Mechanical Engineering, Faculty of Engineering, University Roma Tre, Rome, Italy. Course: Linear Algebra.

2011 – 12. Lecturer – Bachelor's Degree in Mechanical Engineering, Faculty of Engineering, University Roma Tre, Rome, Italy. Course: Linear Algebra.

2011 – 12. Lecturer – Bachelor's Degree in Computer Engineering, Faculty of Engineering, University Roma Tre, Rome, Italy. Course: Linear Algebra and Discrete Mathematics.

2010 – 11. Teaching Assistant – Bachelor's Degree in Mechanical Engineering, Faculty of Engineering, University Roma Tre, Rome, Italy. Course: Linear Algebra.

2010 – 11. Teaching Assistant – Bachelor's Degree in Civil Engineering, Faculty of Engineering, University Roma Tre, Rome, Italy. Course: Linear Algebra.

2010 – 11. Teaching Assistant – Bachelor's Degree in Computer Engineering, Faculty of Engineering, University Roma Tre, Rome, Italy. Course: Linear Algebra and Discrete Mathematics.

2007 – 08. Teaching Assistant – Bachelor's Degree in Computer Engineering, Faculty of Science, University of Perugia, Italy. Course: Discrete Mathematics I.

Research Projects and Associations

2016 – 20. Member of the "Institute for Combinatorics and its Applications (ICA)".

2010 – 12. Project PRIN 2008, Disegni, grafi e i loro codici e gruppi (Designs, graphs and related codes and groups) – Coordinator: Prof. M. Gionfriddo.

2009 – 16. Member of "Unione Matematica Italiana UMI (Italian Mathematical Union)".

2009 – 12, 2014–15. Member of "Istituto Nazionale di Alta Matematica INDAM (Italian National Board for Higher Mathematics) – Gruppo Nazionale per le Strutture Algebriche, Geometriche e le loro Applicazioni (GNSAGA)".

Publications

[1] T. Traetta. Some new results on 1-rotational 2-factorizations of the complete graph. *Journal of Combinatorial Designs* 18(2010), 237–247.

[2] G. Rinaldi, T. Traetta. Graph products and new solutions to Oberwolfach problems. *Electronic Journal of Combinatorics* 18(2011) P52.

- [3] S. Bonvicini, M. Buratti, G. Rinaldi, T. Traetta. Some progress on the existence of 1-rotational Steiner Triple Systems. *Designs, Codes and Cryptography* 62(2012), 63–78.
- [4] M. Buratti, T. Traetta. 2-starters, graceful labelings and a doubling construction for the Oberwolfach problem. *Journal of Combinatorial Designs* 20(2012) 483–503.
- [5] T. Traetta, On a class of highly symmetric k -factorizations. *Electronic Journal of Combinatorics* 20(2013) P24.
- [6] T. Traetta. A complete solution to the two-table Oberwolfach problems. *Journal of Combinatorial Theory A* 120(2013), 984–997.
- [7] M. Buratti, G. Rinaldi, T. Traetta. Some results on 1-rotational Hamiltonian cycle systems. *Journal of Combinatorial Designs* 22(2014), 231–251.
- [8] M. Buratti, S. Capparelli, F. Merola, G. Rinaldi, T. Traetta. A collection of results on Hamiltonian cycle systems with a nice automorphism group. *Electronic Notes in Discrete Mathematics* 40(2013), 245–252.
- [9] M. Buratti, T. Traetta. The structure of 2-pyramidal 2-factorizations. *Graphs and Combinatorics* 31(2015), 523–535.
- [10] R.A. Bailey, M. Buratti, G. Rinaldi, T. Traetta. On 2-pyramidal Hamiltonian cycle systems. *Bulletin of the Belgian Mathematical Society—Simon Stevin* 21(2014), 747–758.
- [11] M. Buratti, G.J. Lovegrove, T. Traetta. On the full automorphism group of a Hamiltonian cycle system of odd order. *Graphs and Combinatorics* 31(2015), 1855–1865.
- [12] F. Merola, T. Traetta. A cyclic solution for an infinite class of Hamilton-Waterloo problems. *Discrete Mathematics* 339(2016), 2267–2283.
- [13] P. Danziger, E. Mendelsohn, T. Traetta. On the existence of unparalleled even cycle systems. *European Journal of Combinatorics* 59(2017), 11–22.
- [14] M. Buratti, G. Rinaldi, T. Traetta. 3-pyramidal Steiner triple systems. *Ars Mathematica Contemporanea* 13(2017), 95–106.
- [15] M. Buratti, H. Cao, D. Dai, T. Traetta. A complete solution to the existence of (k, λ) -cycle frames of type g^u . *Journal of Combinatorial Designs* 25(2017), 197–230.
- [16] A. Burgess, P. Danziger, T. Traetta. On the Hamilton-Waterloo Problem with odd orders. *Journal of Combinatorial Designs* 25 (2017), 258–287.
- [17] A. Burgess, P. Danziger, T. Traetta. On the Hamilton-Waterloo problem with odd cycle lengths. *Journal of Combinatorial Designs* 26 (2018), 51–83.
- [18] A. Burgess, P. Danziger, T. Traetta. On the Hamilton-Waterloo Problem with cycle lengths of distinct parities. *Discrete Mathematics* 341 (2018), 1636–1644.
- [19] A. Burgess, P. Danziger, T. Traetta. The Hamilton-Waterloo Problem with even cycle lengths. *Discrete Mathematics*, 342 (2019), 2213–2222.
- [20] A. Burgess, P. Danziger, T. Traetta. On the generalized Oberwolfach Problem. *Ars Mathematica Contemporanea* 17 (2019), 67–78.
- [21] Cyclic cycle systems of the complete multipartite graph Burgess, A., Merola, F., Traetta, T. *Journal of Combinatorial Designs*, 2020, 28(3), pp. 224–260
- [22] M. Buratti, A. Pasotti, T. Traetta. A reduction of the spectrum problem for odd sun systems and the prime case. *Journal of Combinatorial Designs* 29 (2021), 5–37.

[23] F. Salassa, G. Dragotto, T. Traetta, M. Buratti, F. Della Croce. Merging combinatorial design and optimization: The oberwolfach problem Australasian Journal of Combinatorics 79 (2021), 141–166.

Invited Talks

20–26.06.2021. Invited speaker at the special session on Combinatorial Designs within the “the 8th European Congress of Mathematics (8ECM)”. Talk: On the Oberwolfach Problem for single-flip 2-factors via graceful labelings.

07–11.06.2021. Invited speaker at the special session on Graph Decompositions within the “CMS 75th+1 Anniversary Summer Meeting, Ottawa”. Talk: Highly symmetric Kirkman triple systems.

13–14.09.2018. **Plenary speaker** at the workshop “Algebraic Graph Theory and Complex Networks – WAGTCN 2018”. University of Naples Federico II, Italy.

05–09.03.2018. **Plenary speaker** at the “Kliakhandler Conference – Graph Decompositions”. Michigan Technological University, Houghton, MI, USA. Talk: Recent advances on 2-factorizations.

05–09.03.2018. **Plenary speaker** at the Forty-Ninth Southeastern International Conference on Combinatorics, Graph Theory and Computing (2018). Florida Atlantic University, Boca Raton, FL, USA. Talk: The golden jubilee of the Oberwolfach problem.

08–11.12.2017. Invited speaker at the special session on Design Theory within the “2017 CMS Winter Meeting”. Waterloo (ON) Canada. Talk: Steiner triple systems with well-behaved automorphisms.

10–16.09.2017. Invited speaker at “Finite Geometries 2017 – 5th Irsee Conference”. Irsee, Germany. Talk: On f-pyramidal Steiner triple systems.

06–09.01.2016. Invited speaker at “AMS Special Session on Combinatorial Design Theory” within the “2016 Joint Mathematics Meetings”. Seattle, WA, USA. Talk: Cycle decompositions: resolvable or without parallel classes.

07–12.09.2015. Invited speaker at a special session of “XX Congresso dell’Unione Matematica Italiana”. Siena, Italia Talk: Resolvability vs. absence of parallel classes.

05–08.06.2015. Invited speaker at the special session on “Graphs, Designs and Hypergraphs” within the “2015 Canadian Mathematical Society Summer Meeting”. Charlottetown (PEI) Canada. Talk: On the Hamilton-Waterloo problem for a class of Cayley graphs.

10.04.2015. Talk for the “Ottawa-Carleton Discrete Mathematics Seminar” at Carleton University (ON) Canada. Title: Resolvable cycle decompositions and their symmetries.

12.02.2015. Talk for the “Discrete Mathematics Seminar” at York University (ON) Canada Title: 2-Factorizations and their symmetries.

19–25.06.2011. Invited speaker at “Finite Geometries 2011 – 3rd Irsee Conference”. Irsee, Germany. Talk: Open problems on regular and 1-rotational Steiner triple systems.