

CURRICULUM VITAE OF ANITA PASOTTI

Personal Details

- Name: Anita Pasotti.
- Birth: October 12, 1980 in Brescia (Italy).
- Working Address: DICATAM - Sez. di Matematica,
Università degli Studi di Brescia, Via Branze, 43 - 25123 Brescia
(Italy).
- e-mail: anita.pasotti@unibs.it
- homepage: <http://anita-pasotti.unibs.it>

Present Academic Position

1/1/2015 – today. Associate Professor of Geometry at Università degli Studi di Brescia (Italy).

Professional Career

- 01/12/10 – 31/12/14 Research Associate in Geometry at Università degli Studi di Brescia (Italy).
- 01/06/07 – 30/11/10 Research Fellow in Geometry at Università degli Studi di Brescia (Italy).

Studies

- 04/12/06 Ph.D. in Pure and Applied Mathematics, at Università degli Studi di Milano-Bicocca (Italy); Thesis: “*Graph decompositions with a sharply vertex transitive automorphism group*”, supervisors: Prof. Marco Buratti and Francesca Dalla Volta.
- 18/09/03 Laurea in Matematica (Degree in Mathematics) with a score of 110 cum laude/110, at Università Cattolica (Italy); thesis “*Algebra cinematiche e loro geometrie*”, supervisor: Prof.ssa Elena Zizioli.

Awards and grants

- Grant by “Giuseppe Tovini” Foundation for the academic year 2008/2009.
- Grant for Ph.D. at Univ. degli Studi Milano-Bicocca for the academic years 2003/04–2005/06.
- XLIII Premio *Agostino Gemelli* of Ludovico Necchi Association as the best graduated student in the Faculty at Univ. Cattolica for the year 2003.

- Grant as best student in the Faculty at Univ. Cattolica for the academic years 2000/01–2002/03.

Projects Funded

- Supervisor of the project “Applicazioni della teoria dei grafi e dei disegni alla teoria dell’informazione e della codifica” partially funded by Università degli Studi di Brescia, period: 1/12/2018–30/11/2019.
- Supervisor of the project “Applicazioni di strutture geometriche e combinatoria alle famiglie differenza e alla decomposizione di grafi” partially funded by Università degli Studi di Brescia, period: 1/1/2017–31/12/2017.
- PRIN 2012, title “Strutture geometriche, combinatoria e loro applicazioni”, University: Università degli Studi di Brescia, period: 36 months, role: participant.
- PRIN 2008, title “Disegni, grafi e i loro codici e gruppi”, University: Università degli Studi di Roma “La Sapienza”, period: 24 months, role: participant.

Member of the following associations

- Unione Matematica Italiana (U.M.I) since 2011.
- Istituto Nazionale di Alta Matematica (I.N.d.A.M.), G.N.S.A.G.A, section Strutture Algebriche e Geometria Combinatoria since 2005.
- Seminario Matematico di Brescia since 2004.

Referee for

Ars Mathematica Contemporanea; Designs, Codes and Cryptography; Journal of Combinatorial Designs; Discrete Mathematics; Graphs and Combinatorics; Ars Combinatoria; Australasian Journal of Combinatorics; AKCE International Journal of Graphs and Combinatorics; Mathematical Reviews; Quaderni di Matematica.

Visiting Professor

25/02 - 9/03/2013 at Universidade de Brasília, Brasília-DF, Brazil.

Research interests

Design theory;
Graph decompositions;
Difference families;
Graceful labelings.

Accepted papers

1. S. Costa, F. Morini, A. Pasotti and M.A. Pellegrini, *Globally simple Heffter arrays and orthogonal cyclic cycle decompositions*, Austral. J. Combin. **72** (2018), 549–593.
2. A. Pasotti and M.A. Pellegrini, *Cyclic uniform 2-factorizations of the complete multipartite graph*, Graphs and Combin. **34** (2018), 901–930.
3. S. Costa, F. Morini, A. Pasotti and M.A. Pellegrini, *A problem on partial sums in abelian groups*, Discr. Math. **341** (2018), 705–712.
4. F. Merola, A. Pasotti and M.A. Pellegrini, *Cyclic and symmetric hamiltonian cycle systems of the complete multipartite graph: an even number of parts*, Ars Math. Contemp. **12** (2017), 219–233.
5. A. Pasotti and M.A. Pellegrini, *A generalization of the problem of Mariusz Meszka*, Graphs and Combin. **32** (2016), 333–350.
6. A. Benini and A. Pasotti, *α -labelings of a class of generalized Petersen graphs*, Discuss. Math. Graph Theory **35** (2015), 43–53.
7. A. Pasotti and M.A. Pellegrini, *On the Buratti–Horak–Rosa Conjecture about Hamiltonian Paths in Complete Graphs*, Electron. J. Combin. **21** (2014), #P2.30.
8. A. Benini and A. Pasotti, *Decompositions of complete multipartite graphs via generalized graceful labelings*, Australasian J. Combin. **59** (2014), 120–143.
9. A. Pasotti and M.A. Pellegrini, *A new result on the problem of Buratti, Horak and Rosa*, Discrete Math. **319** (2014), 1–14.
10. M. Buratti and A. Pasotti, *Cyclic kite-designs of order v that are cyclically embedded into a cyclic $(v, 4, 2)$ -design*, Quaderni di Matematica della II Università di Napoli **28** (2013), 165–176.
11. A. Pasotti, *On d -graceful labelings*, Ars Combin. **111** (2013), 207–223.
12. A. Pasotti and A. Benini, *Decompositions into generalized Petersen graphs via graceful labelings*, Electron. Notes Discrete Math. **40** (2013), 295–298.
13. A. Benini and A. Pasotti, *Decompositions of graphs via generalized graceful labelings*, Electron. Notes Discrete Math. **40** (2013), 39–42.
14. M. Buratti, A. Pasotti and D. Wu, *On optimal $(v, 5, 2, 1)$ optical orthogonal codes*, Des. Codes Cryptog. **68** (2013), 349–371.

15. A. Pasotti, *On d -divisible α -labelings of $C_{4k} \times P_m$* , Util. Math. **90** (2013), 135–148.
16. A. Benini, L. Giuzzi and A. Pasotti, *New results on path-decompositions and their down-links*, Util. Math. **90** (2013), 369–382.
17. A. Benini, L. Giuzzi and A. Pasotti, *Down-linking (K_v, Γ) -designs to P_3 -designs*, Util. Math. **90** (2013), 3–21.
18. L. Giuzzi and A. Pasotti, *Sampling complete designs*, Discrete Math. **312** (2012), 488–497.
19. M. Buratti, K. Momihara and A. Pasotti, *New results on optimal $(v, 4, 2, 1)$ optical orthogonal codes*, Des. Codes Cryptogr. **58** (2011), 89–103.
20. A. Pasotti and M. A. Pellegrini, *Symmetric 1-factorizations of the complete graph*, European J. Combin. **31** (2010), 1410–1418.
21. M. Buratti and A. Pasotti, *Further progress on difference families with block size 4 or 5*, Des. Codes Cryptogr. **56** (2010), 1–20.
22. A. Pasotti, *Constructions for cyclic Moebius ladder systems*, Discrete Math. **310** (2010), 3080–3087.
23. M. Buratti and A. Pasotti, *Combinatorial designs and the Theorem of Weil on multiplicative character sums*, Finite Fields Appl. **15** (2009), 332–344.
24. A. Benini and A. Pasotti, *On the existence of elementary abelian cycle systems*, Graphs Combin. **25** (2009), 1–14.
25. M. Buratti and A. Pasotti, *On perfect Γ -decompositions of the complete graph*, J. Combin. Des. **17** (2008), 197–209.
26. A. Pasotti, *On equidistance graphs*, Australasian J. Combin. **42** (2008), 229–240.
27. A. Pasotti, *Decomposizioni di grafi con un gruppo di automorfismi strettamente transitivo sui vertici*, Bollettino UMI, La Matematica nella Società e nella Cultura, Serie VIII, Vol. X-A, Agosto 2007, 311–314.
28. A. Pasotti and E. Zizioli, *Incidence left loops derived from kinematic algebras*, Results Math. **50** (2007), 125–139.
29. M. Buratti and A. Pasotti, *Graph decompositions with the use of difference matrices*, Bull. Inst. Combin. Appl. **47** (2006), 23–32.

Conference talks

1. June 2017. *Some conjectures on partial sums of a given set*, Hypergraphs, Graphs and Designs - HyGraDe 2017, Sant'Alessio Siculo, Messina, Italy.
2. September 2015. *Sistemi ciclici e simmetrici di cicli hamiltoniani del grafo multipartito completo*, XX U.M.I. Conference, Siena, Italy.
3. June 2015. *Near 1-factors with prescribed edge-lengths in the complete graph*, 8th Slovenian Conference on Graph Theory, Kranjska Gora, Slovenia.
4. January 2015. *Disegni combinatorici e grafi*, national meeting, Brescia, Italy.
5. June 2014. *From Buratti's problem to Meszka's one*, Combinatorics 2014, Gaeta, Latina, Italy.
6. July 2013. *On the problem of Buratti, Horak and Rosa*, 24th British Combinatorial Conference, London, England.
7. February 2013. *Old and new graceful labelings*, Escola de Verão, Brasília-DF, Brazil. (Invited speaker).
8. September 2012. *Decompositions into generalized Petersen graphs via graceful labelings*, Combinatorics 2012, Perugia, Italy.
9. February 2012. *On $(v, k, 2, 1)$ -optical orthogonal codes*, national meeting, Vicenza, Italy.
10. June 2011. *d -graceful labelings and graph decompositions*, 2nd Istanbul Design Theory, Graph Theory and Combinatorics Conference, Istanbul, Turkey.
11. March 2011. *d -graceful labelings e decomposizioni cicliche*, national meeting, Vicenza, Italy. (Invited speaker).
12. June 2010. *Down-linking graph decompositions*, Combinatorics 2010, Verbania, Italy.
13. January 2010. *Nuove costruzioni ottimali di codici ottici ortogonali*, national meeting, Brescia, Italy.
14. September 2009. *Regular 1-factorizations of the complete graph*, 9th International Conference on Geometry and Applications, Varna, Bulgaria.

15. June 2008. *Elementary abelian designs via the Theorem of Weil on multiplicative character sums*, Combinatorics 2008, Costermano (Verona), Italy.
16. February 2008. *Equidistance and isodistance graphs*, 35th Conference on Geometry and Algebra, Berlin, Germany.
17. February 2007. *Esistenza asintotica di Γ -sistemi di Steiner*, national meeting, Caserta, Italy.
18. June 2006. *Constructions for 2-perfect designs with a regular automorphism group*, Combinatorics 2006, Ischia (Napoli), Italy.
19. September 2005. *Costruzioni ricorsive di disegni combinatori regolari*, national meeting, Vicenza, Italy.
20. April 2005. *A generalization of difference matrices and its applications to graph decompositions*, ALCOMA 05: Algebraic Combinatorics and its Applications, Thurnau (Bayreuth), Germany.
21. February 2005. *Mappe complete e quadrati latini*, national meeting, Messina, Italy.
22. December 2003. *Algebre quadratiche non associative, geometrie derivate e loro automorfismi*, national meeting, Roma, Italy.
23. October 2003. *Kinematic algebras and incidence fibered loop*, national meeting, Bologna, Italy.

Seminars as invited speaker

1. December 2015. *2-fattorizzazioni cicliche del grafo multipartito completo*. Univ. Cattolica di Brescia, Italy.
2. April 2015. *La teoria dei grafi e la connettività del cervello umano*. Univ. Cattolica di Brescia, Italy.
3. November 2012. *Da matematico ad event planner*. Univ. Cattolica di Brescia, Italy.
4. April 2011. *Torneo all'italiana e Problema di Oberwolfach*. Univ. Cattolica di Brescia, Italy.
5. March 2011. *Graceful labelings e loro generalizzazioni*. Univ. di Roma "La Sapienza", Italy.
6. March 2011. *Campionato di calcio, cene e... matematica*. Mathesis (sede di Vicenza), Italy.

7. October 2008. *Graziose scale di Moebius*. Univ. Cattolica di Brescia, Italy.
8. February 2007. *Γ -sistemi di Steiner regolari*. Univ. Cattolica di Brescia, Italy.
9. October 2006. *2-disegni e decomposizioni di grafi*. Univ. Cattolica di Brescia, Italy.
10. October 2006. *Il gruppo di automorfismi di un grafo*. Univ. Cattolica di Brescia, Italy.
11. March 2006. *Fattorizzazioni del grafo completo*. Univ. degli Studi di Brescia, Italy.
12. February 2006. *Teoria dei grafi: un'introduzione*. Univ. Cattolica di Brescia, Italy.
13. January 2006. *Mappe complete e matrici differenza*. Univ. degli Studi di Milano-Bicocca, Italy.
14. October 2004. *Mappe complete e quadrati latini*. Univ. Cattolica di Brescia, Italy.

Organisation of conferences

- Member of the scientific committee of the series of seminars “Discrete Mathematics Seminars 2018/2019”, September 2018–July 2019, hold at University of Brescia, University of Modena and Reggio Emilia, University of Verona.
- Member of the organising committee of the International Conference “Combinatorics 2018”, 3-9 June 2018 Arco, Trento (Italy).

Teaching

- 2011/12 – now. Main instructor for *Algebra e Geometria*, at Univ. degli Studi di Brescia.
- 2010/11 – 2012/13 Teaching assistant for *Approfondimenti di Geometria*, at Univ. Cattolica di Brescia.
- 2007/08 – 2014/15 Teaching assistant for *Algebra e Geometria*, at Univ. degli Studi di Brescia.
- 2006/07 Teaching assistant for *Matematica-Geometria*, at Univ. degli Studi di Brescia.
- 2004/05 – 2005/06 Teaching assistant for *Algebra Lineare e Geometria*, at Univ. degli Studi di Milano-Bicocca.

- 2003/04 – 2005/06 Teaching assistant for *Geometria 3*, Univ. Cattolica di Brescia.

Brescia, 8/5/19

Anita Pasotti