

Andrea Vietri

Born in Rome, Italy, on June 20th, 1969.

Researcher in Geometry (MAT/03) since November 1st, 2010, at Sapienza Università. Department: S.B.A.I. (Scienze di Base e Applicate per l'Ingegneria).

EDUCATION

January 30th, 1992, Italian “Laurea” in Mathematics, Università La Sapienza, Rome, Italy. Topic of the thesis: Cobordism theory (Algebraic and Differential Topology).

February 20th, 2003, PhD in Mathematics, Università La Sapienza. Title of the thesis: *Two examples of hypergraph edge-coloring, and their connections with other topics in Combinatorics*.

POSTDOCTORAL GRANTS

November 2003 - October 2005 and July 2006 - June 2009, Postdoctoral grants in Geometry (Combinatorics), department: Metodi e Modelli Matematici per le Scienze Applicate (Me.Mo.Mat.), Università La Sapienza. Main research topic: block designs, decomposition of graphs, difference families, graph labellings.

TEACHING

November 1993 - March 1999, teacher of Mathematics in public High Schools (Sassari, Viterbo).

2000 - 2010, “Tutor” in Calculus, Geometry and Algebra, Università La Sapienza.

2001 - 2003, “Professore a contratto” in Mathematical Logic, Università La Sapienza.

2005 - 2010, “Professore a contratto” in Geometry, Università La Sapienza, Polo di Latina.

SCHOOLS AND OTHER COURSES

1992 - 1993, course in Mathematical Teaching (“Didattica della matematica e della matematica applicata”), Università La Sapienza.

1994 - 1995, course in Teaching Technologies (“Tecnologie per l'insegnamento”), Università Roma Tre.

1997 - 1998, course in Science Teaching (“Didattica delle scienze”), Università Roma Tre.

9 - 21 August, 1999, ESSLLI99, European school of Logic, Language and Information, Utrecht University (The Netherlands).

September 27th - October 1st, 1999, Summer school in Logic, Cesena (Italy).

21 - 24 March, 2000, SUNLAG2000, Workshop in Logic, Algebra, Geometry, Seconda Università di Napoli (Italy).

ORGANISATION OF EVENTS

11 - 14 June, 2003, 22ème Journées sur les Arithmétiques Faibles, Napoli (Website construction and general collaboration).

RECENT SEMINARS AND TALKS

* February 9th, 2006, Department of Mathematics, Università La Sapienza, seminar: *Dalle vocali ai grafi: un esempio di interazione tra fonetica e combinatoria*.

* MEGAI06, Bologna (Italy), March, 4th, 2006, *From Phonetics to Combinatorics using Voronoi diagrams and graphs*.

* May 18th, 2006, Research Group in Mathematical Linguistics, Tarragona University (Spain), seminar: *Some combinatorial and geometrical approaches to linguistic issues*.

* Combinatorics 2006, Ischia (Italy), June 25th - July 1st, 2006, *Some disillusioned remarks on the Graceful Tree Conjecture*.

* ISAGA 06, Granada (Spain), 4 - 8 September, 2006, *A geometrical-combinatorial analysis of vowel phoneme dissimilarities* (invited speaker).

- * International Combinatorics, Geometry and Computer Science Conference CGCS2007, Marseille (France), 2 - 4 May, 2007, *Should we give up the graceful tree conjecture?*
- * 21st British Combinatorial Conference, Reading (England), 8 - 13 July, 2007, *The Graceful Collage tool yields new graceful labellings.*
- * November 23rd, 2007, Laboratory of Linguistics, Scuola Normale Superiore (Pisa, Italy), seminar: *Un metodo geometrico per confrontare inventari vocalici.*
- * Combinatorics 2008, Garda (Italy), 22 - 28 June, 2008, *Graceful labellings and symmetric functions.*
- * Cognitive Modeling in Linguistics 2009, Constantza (Romania), 7 - 14 September, 2009, *A graph-theoretic framework for semantic relatedness.*
- * March 11th, 2011, Department S.B.A.I., Università Sapienza, seminar: *Un modello combinatorio per l'analisi di inventari vocalici.*
- * May 26th, 2011, Department of Mathematics, Università Sapienza, seminar: *Etichettature graziose-reali: una generalizzazione delle etichettature graziose.*

RECENT PUBLICATIONS

- * *Graceful labellings for an infinite class of generalised Petersen graphs*, Ars Comb. **81**, 2006, pp. 247-255 (errata: Ars Comb. **83**, 2007, p. 381).
- * *Difference families in $\mathbf{Z}_{2d+1} \times \mathbf{Z}_{2d+1}$ and infinite translation designs in $\mathbf{Z} \times \mathbf{Z}$* , Graphs and Comb. **23**, 2007, pp. 111-121.
- * *On certain 2-rotational cycle systems of complete graphs*, Austral. J. Comb. **37**, 2007, pp. 73-79.
- * *Nice lists of differences, and their connections with algebraic properties of unitary polynomials*, Austral. J. Comb. **37**, 2007, pp. 171-185.
- * *Colouring walls may help to make good schedules*, Ars Comb. **84**, 2007, pp. 205-215.
- * *A combinatorial approach to the phonetic similarity of languages* (with D.A. Gewurz), Mathém. et Sc. Humaines **179**, 2007, pp. 21-44.
- * *Sailing towards, and then against, The Graceful Tree Conjecture: some promiscuous results*, I.C.A. Bulletin **53**, 2008, pp. 31-46.
- * *A new infinite family of generalised Petersen graphs, via "graceful collages" again*, Austral. J. Comb. **41**, 2008, pp. 273-282.
- * *A graph-theoretic framework for semantic relatedness*, Text Processing and Cognitive Technologies **17**, Kazan, 2010, pp. 181-192 (proceedings of XI CML in Constantza, Romania, 2009).
- * *Real-graceful labellings: a generalisation of graceful labellings*, Ars Comb. **102**, 2011, pp. 359-364.
- * *Necessary conditions on graceful labels: a study case on trees and other examples*, Utilitas Math., accepted.
- * *A combinatorial analysis of zero-divisor graphs on certain polynomial rings*, Comm. Algebra, accepted.

TEXTBOOKS

- * *Itinerario di geometria e algebra lineare*, ed. CISU, 2010.

REFEREEING ACTIVITY

for many international journals on Combinatorics.

REVIEWER

for MathSciNet.

RESEARCH UNIT

(PRIN 2008) DISEGNI, GRAFI e i loro CODICI e GRUPPI, Sapienza Università.