Short CV Oriol Serra

Personal data:

Date and place of birth: 16 January 1957, Vic, Barcelona.
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Professional Address:

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Academic degrees

M.S. Degree in Mathematics, Univ. de Barcelona, 1984

PhD Degree in Mathematical Sciences, Univ. Politècnica de Catalunya, 1989.

Research interests

Combinatorics, Graph Theory, Combinatorial Number Theory

Position

Full professor of Applied Mathematics in the *Departament de Matemàtiques* at the Universitat Politècnica de Catalunya (UPC) since 1999.

Visiting positions at University of California Santa Cruz (1994-95), ENS Télécommunications Paris (2000), Rényi Institute Budapest (2001), Charles University Prague (2005), Institute de Mathématiques de Bordeaux (2012).

Academic activities

Director of the research group on Combinatorics, Graph Theory and applications at UPC. *http://combgraph.upc.edu*

Co-chair of the scientific committee in FPSAC'99 (Formal Power Series and algebraic Combinatorics), local chairman of EuroComb01 (Euroconference on Combinatorics, Graph Theory and applications), co-chair of EuroComb'07, organizer of Workshop of Graph Homomorphisms and applications (CRM, 2001 and 2006), coordinator of DocCourse in Additive Combinatorics (CRM 2008). Co-chair of special session on Combinatorics in the European Congress of Mathematics ECM 2008. Co–chair of CIMPA School on Extremal Graph Theory, ITB Bandung 2009 (Indonesia), Chair of CIMPA Research School Graph

labelings, graph decompositions and Hamiltonian cycles, Vientianne 2014 (Laos), Co-Chair European Conference on Combinatorics, Graph Theory and applications, Bergen 2015 (Norway).

Guest Editor of special volumes J. Nesetril, O. Serra, Combinatorics, Graph Theory and Applications *European J. Combin.* (2017); Oriol Serra, Jozef Siran and Sanming Zhou, IWONT 2016 *J. of INterconnection Networks* (2017); A. Plagne, O. Serra, G. Zémor, Dedicated to Yahya O. Hamidoune *Europ. J. Combin* (2013); J. Cilleruelo, O. Serra, Additive Combinatorics *CRM Advanced Course Series, Birkhauser* (2010); Combinatorics, Graph Theory and Applications *European J. Combin. 30* (2009); J. Nešetřil, O. Serra, Homomorphisms: structure and highlights *European J. Combin.* 29 (2008), no. 4; J. Kratochvil, A. Proskurovsky, O. Serra, Eds.Optimization Problems, Graph Classes and Width Parameters, *Discrete Applied Mathematics* , Jan. 2005; J. Nešetřil, M. Noy, O. Serra, Eds.Combinatorics, Graph Theory and applications, *Discrete Mathematics*, Volume 273, Issues 1-3, (2003).

Main researcher of projects 'Discrete geomteric and random structures' (MTM2014-54745-P), 'Extremal problems in Combinatorics' (MTM2005-08990-C02-01, 2005-2008), 'Discrete isoperimetric inequalities' (MCyT/BFM2002-00412, 2002-2005) of the Spanish Research Council, 'Combinatorics, Graph Theory and applications' (2005SGR00256, 2005–2008, 2009SGR1387, 2009-2013, 2013-2016) of the Catalan Research Council, Geosumsets (PIEF-GA-2009-235136, 2010-2012) and coordinating site of the European Project 'Combinatorial Structure of Intractable Problems' of the Research and Training Networks program (RTN2-2001-00231).

Chair of the *Department of Mathematics, UPC* (2015–), Chair of the *Departament de Matemàtica Aplicada 4, UPC* (2009-2015), Vice–dean at the *Facultat de Matemàtiques i Estadística, UPC* (2005–2009), Member of the Scientific Committee of the *Barcelona Graduate School* (2015–), Executive Committee of the *Barcelona Graduate School of Mathematics* (2012–2015), Member of Council of the European Math. Soc. (2011–), Board of the Catalan Math. Soc. (2007–2015), Board of *Ingenio Mathematica I-Math* (2007-2009), Scientific Board of *Centre de Recerca Matemàtica* (2001–2006).

Some Recent Publications

Christine Bachoc,Oriol Serra,Gilles Zémor, Revisiting Kneser?s theorem for field extensions, to appear in Combinatorica (2017)

Christine Bachoc,Oriol Serra,Gilles Zmor, An analogue of Vosper's Theorem for Extension Fields, to appear in Math. Proc. Camb. Phil. Soc. (2017)

Florent Foucaud, Guillem Perarnau, Oriol Serra, Random subgraphs make identification affordable, Journal of Combinatorics 8(1) (2017) 55–77

Guillem Perarnau,Oriol Serra, Correlation among runners and some results on the Lonely Runner Conjecture, Electronic Journal of Combinatorics, 23(1) (2016) Paper #P1.50 (22pp)

Böröczky, Károly J.; Santos, Francisco; Serra, Oriol On sumsets and convex hull.*Discrete Comput. Geom.* 52 (2014), no. 4, 705–729.

Perarnau, G.; Serra, O. On the tree-depth of random graphs. *Discrete Appl. Math.* 168 (2014), 119–126.

Montejano, Amanda; Serra, Oriol Counting patterns in colored orthogonal arrays. *Discrete Math.* 317 (2014), 44–52.

Serra, Oriol; Vena, Lluís On the number of monochromatic solutions of integer linear systems on abelian groups. *European J. Combin.* 35 (2014), 459–473.

Freiman, G. A. ; Grynkiewicz, D. ; Serra, O. ; Stanchescu, Y. V. Inverse additive problems for Minkowski sumsets II. *J. Geom. Anal.* 23 (2013), no. 1, 395–414.

Perarnau, Guillem; Serra, Oriol Rainbow perfect matchings in complete bipartite graphs: existence and counting. *Combin. Probab. Comput.* 22 (2013), no. 5, 783–799.

Serra, Oriol; Zémor, Gilles A structure theorem for small sumsets in nonabelian groups. *European J. Combin.* 34 (2013), no. 8, 1436–1453.

Král', Daniel; Serra, Oriol; Vena, Lluís On the removal lemma for linear systems over abelian groups. European J. Combin. 34 (2013), no. 2, 248–259.

Böröczky, K.J. ; Pálfy, P.P. ; Serra, O. On the cardinality of sumsets in torsion-free groups. *Bull. Lond. Math. Soc.* 44 (2012), no. 5, 1034–1041.

Král, D.; Serra, O. and Vena, L. A removal lemma for systems of linear equations over finite fields *Israel J. Math.* 187 (2012), 193–207.

Freiman, G. A.; Grynkiewicz, D.; Serra, O.; Stanchescu, Y. V. Inverse additive problems for Minkowski sumsets I. *Collect. Math.* 63 (2012), no. 3, 261–286.

Montejano, A.; Serra, O . Rainbow-free 3-colorings of abelian groups. *Electron. J. Combin.* 19 (2012), no. 1, Paper 45, 20 pp.