

María del Pilar Cano Vila

9 February 1990, Mexico city

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Education

- May 2016 – **Ph.D.**, *Applied Mathematics*, Universitat Politècnica de Catalunya, Barcelona.
- 2014–2015 **M.Sc.**, *Advance Mathematics and Mathematical Engineering*, Universitat Politècnica de Catalunya, Barcelona.
- 2010–2014 **B.Sc.E.**, *Mathematics*, Universidad Nacional Autónoma de México, Mexico city, MX.
suma cum laude.

Current

- Ph.D Student**, *Applied Mathematics*, Universitat Politècnica de Catalunya, Barcelona, Spain.
Sponsored by CONACyT, MX.
- Ph.D Student**, *Computer Science*, Carleton University, Ottawa, Canada.
Sponsored by CONACyT, MX.

Previous Employments

- 2014–2015 **Graduate Student**, *Master in Advanced Mathematics and Mathematical Engineering*, UPC, Barcelona, Spain.
Sponsored by CONACyT, MX.
- Feb–Jul 2014 **Teaching Assistant**, *Licenciatura en Matemáticas*, UNAM, Mexico City, Courses: Gráficas y Juegos.
- Sept–Dec 2013 **Teaching Assistant**, *Licenciatura en Biología*, UNAM, Mexico City, Courses: Matemáticas I para Biólogos.
- Feb–Jul 2013 **Student's assistant on math problems**, *Taller de matemáticas*, Department of Mathematics, Faculty of science, UNAM, MX.

Spoken Languages

- Spanish **Mother language**
English **6.5 (IELTS)**
Italian **Medium**

Programming Languages

- Basic Python, R
Advance LaTeX

Awards

- 2014 **Candidate for Medal Gabino Barrera for undergraduate students**, *Mathematics*, This award is given to the best student for each undergraduate program at UNAM.

Master's Thesis

- Title *Rainbow Matchings in Hypergraphs*

Advisor Oriol Serra

Abstract An overview about all the last results of rainbow matchings in graphs and hypergraphs and some new bounds for the size of matchings in r -partite r -uniform hypergraphs such that there is a rainbow matching.

Bachelor's Thesis

Title *Ciclos hamiltonianos en una generalización de torneos bipartitos.*

Advisor Hortensia Galeana-Sánchez and Ilán A. Goldfeder.

Abstract A constructive proof for a sufficient and necessary condition of having a hamiltonian cycle on a \mathcal{P} -composition of a cycle.

Talks

July, 2016 **Rainbow perfect matchings in r -partite graph structures**, *Discrete Mathematics Days*, UPC, Barcelona, Spain.

Workshops and conferences attended

June, 2017 **CONNECT Workshop on Geometric Networks**, UPC, Barcelona, Spain.

July, 2016 **Jornadas de Matematica Discreta y Algoritmica**, UPC, Barcelona, Spain.

May, 2016 **13th European Research Week on Geometric Graphs**, UPC, Barcelona, Spain.

July, 2015 **XVI Spanish Meeting on Computational Geometry**, UPC, Barcelona, Spain.

March, 2014 **XXIX Coloquio Víctor Neumann-Lara de Teoría de las Gráficas**, Boca del Río, Veracruz, México.

March, 2013 **XXVIII Coloquio Víctor Neumann-Lara de Teoría de las Gráficas**, Morelia, Michoacán, México.

Publications

published **P. Cano, G. Perarnau and O. Serra**, *Rainbow perfect matchings in r -partite graph structures*, ENDM.

submitted **P. Cano, H. Galeana-Sánchez and I. Goldfeder**, *First results on the existence of Hamiltonian cycles in \mathcal{P} -compositions*.

in progress **P. Cano, G. Perarnau and O. Serra**, *Rainbow spanning structures in bounded edge-colorings of graphs*, Progress: 90%.