

María del Pilar Cano Vila

9 February 1990, Mexico city

Jordi Girona 1-3
Omega building, office 411
08015 Barcelona, Spain
☎ +34652416449
✉ pilukno@gmail.com

Last update: February, 2018

Education

- May 2016 – **Ph.D.**, *Computer Science*, Carleton University, Ottawa.
- May 2016 – **Ph.D.**, *Applied Mathematics*, Universitat Politècnica de Catalunya, Barcelona.
- 2014–2015 **M.Sc.**, *Advanced Mathematics and Mathematical Engineering*, Universitat Politècnica de Catalunya, Barcelona.
- 2010–2014 **B.Sc.E.**, *Mathematics*, Universidad Nacional Autónoma de México, Mexico city, MX.
summa cum laude.

Current

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

Previous Employments

- 2014–2015 **Graduate Student**, *Master's 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	Native
English	6.5 (IELTS)
Italian	Medium

Programming Languages

Basic	R
Medium	C++, TensorFlow, NLTK
Advanced	LaTeX, Python

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.

Interests

Algorithms, Computational Geometry, Graph Drawing, Geographic Information Systems, Discrete Geometry, Graph Theory, Combinatorial Games, Natural Language Processing, Probability

Master's Thesis

- Title *Rainbow Matchings in Hypergraphs*
Advisor Oriol Serra
Abstract An overview of the latest results of rainbow matchings in graphs and hypergraphs. Also, 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

- November, 2017 **The ACM Canadian Celebration of Women in Computing**, Montreal, Canada.
August, 2017 **Fields Workshop on Discrete and Computational Geometry**, Carleton University, Ottawa, Canada.
July, 2017 **29th Canadian Conference on Computational Geometry**, Carleton University, Ottawa, Canada.
June, 2017 **XXVII Spanish Meeting on Computational Geometry**, Universitat d'Alacant, Alicante, Spain.
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.
published **P. Cano, G. Perarnau and O. Serra**, *Rainbow spanning structures in bounded edge-colorings of graphs*, ENDM.
accepted **P. Bose, P. Cano, and R. I. Silveira**, *Sequences of spanning trees for L_∞ -Delaunay triangulations*, EuroCG 2018.
submitted **P. Cano, H. Galeana-Sánchez and I. Goldfeder**, *First results on the existence of Hamiltonian cycles in \mathcal{P} -compositions*.