



## **RUY FABILA MONROY**

### **Datos Generales**

**Nombre:** RUY FABILA MONROY

**Máximo nivel de estudios:**

**Antigüedad académica en la UNAM:** 1 año

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### **Nombramientos**

**Último:** PROFESOR ASIGNATURA A TP No Definitivo  
Facultad de Ciencias  
Desde 01-01-2009 hasta 15-02-2009

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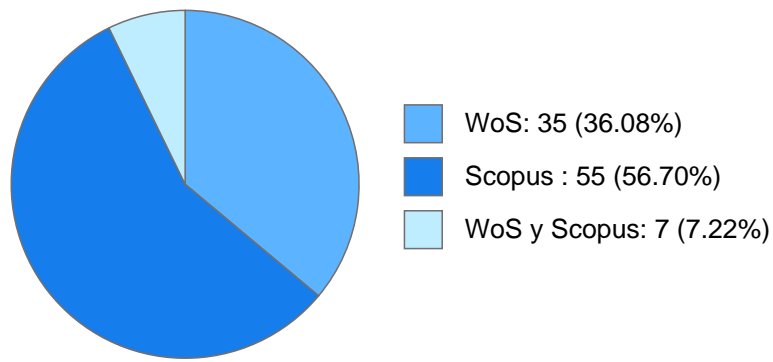
### **Estímulos, programas, premios y reconocimientos**

SNI III 2021 - 2023  
SNI II 2017 - 2020  
SNI I 2014 - 2016  
SNI C 2011 - 2013

## RUY FABILA MONROY

### DOCUMENTOS EN REVISTAS

#### Histórico de Documentos



#	Título	Autores	Revista	Año
1	Perfect Matchings with Crossings	RUY FABILA MONROY Aichholzer O. Kindermann P. et al.	Lecture Notes in Computer Science	2022
2	Stochastic strategies for patrolling a terrain with a synchronized multi-robot system	RUY FABILA MONROY Caraballo L.E. Díaz-Báñez J.M. et al.	EUROPEAN JOURNAL OF OPERATIONAL RESEARCH	2022
3	Empty rainbow triangles in k-colored point sets	RUY FABILA MONROY Perz D. Trujillo-Negrete A.L.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2021
4	Some Results on the Laplacian Spectra of Token Graphs	RUY FABILA MONROY Dalfó C. Duque F. et al.	Trends In Mathematics	2021
5	No Selection Lemma for Empty Triangles	RUY FABILA MONROY Hidalgo-Toscano C. Perz D. et al.	Trends In Mathematics	2021
6	Counting the number of crossings in geometric graphs	RUY FABILA MONROY Frank Duque Cesar Hernandez-Velez et al.	INFORMATION PROCESSING LETTERS	2021

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7	A note on empty balanced tetrahedra in two-colored point sets in $R-3$	RUY FABILA MONROY JORGE URRUTIA GALICIA Díaz-Bañez J.-M.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2021
8	On the number of order types in integer grids of small size	RUY FABILA MONROY AMANDA MONTEJANO CANTORAL Luis E. Caraballo et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2021
9	On the Laplacian spectra of token graphs	RUY FABILA MONROY Dalfó C. Duque F. et al.	LINEAR ALGEBRA AND ITS APPLICATIONS	2021
10	Non-crossing monotone paths and binary trees in edge-ordered complete geometric graphs	RUY FABILA MONROY Duque F. Hidalgo-Toscano C. et al.	ACTA MATHEMATICA HUNGARICA	2021
11	On optimal coverage of a tree with multiple robots	ISRAEL ALDANA GALVAN JUAN CARLOS CATANA SALAZAR FELIPE DUQUE SARABIA et al.	EUROPEAN JOURNAL OF OPERATIONAL RESEARCH	2020
12	An ongoing project to improve the rectilinear and the pseudolinear crossing constants	RUY FABILA MONROY Aichholzer O. Duque F. et al.	Journal of Graph Algorithms and Applications	2020
13	On the 2-Colored Crossing Number	RUY FABILA MONROY Aichholzer O. Fuchs A. et al.	Lecture Notes in Computer Science	2019
14	Cross-sections of line configurations in $R-3$ and $(d-2)$ -flat configurations in $R-d$	RUY FABILA MONROY JORGE URRUTIA GALICIA Aichholzer O. et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2019
15	Point Sets with Small Integer Coordinates and No Large Convex Polygons	RUY FABILA MONROY Duque F. Hidalgo-Toscano C.	DISCRETE & COMPUTATIONAL GEOMETRY	2018
16	Colored ray configurations	RUY FABILA MONROY ANDRES GARCIA AGUAYO Hurtado, F. et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2018

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17	Modem illumination of monotone polygons	RUY FABILA MONROY Aichholzer, O. Flores-Peñaloza, D. et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2018
18	Computing balanced islands in two colored point sets in the plane	RUY FABILA MONROY JOSE DAVID FLORES PEÑALOZA JORGE URRUTIA GALICIA et al.	INFORMATION PROCESSING LETTERS	2018
19	Optimal grid drawings of complete multipartite graphs and an integer variant of the algebraic connectivity	RUY FABILA MONROY Hidalgo-Toscano C. Huemer C. et al.	Lecture Notes in Computer Science	2018
20	Carathéodory's Theorem in Depth	RUY FABILA MONROY Huemer C.	DISCRETE & COMPUTATIONAL GEOMETRY	2017
21	Regularity and planarity of token graphs	RUY FABILA MONROY Carballosa, W. Leaños, J. et al.	DISCUSSIONES MATHEMATICAE GRAPH THEORY	2017
22	Drawing the almost convex set in an integer grid of minimum size	RUY FABILA MONROY Duque, F. Hidalgo-Toscano, C. et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2017
23	Drawing the Horton set in an integer grid of minimum size	RUY FABILA MONROY Barba, L. Hidalgo-Toscano, C. et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2017
24	New results on the coarseness of bicolored point sets	RUY FABILA MONROY Díaz-Báñez, J.M. Pérez-Lantero, P. et al.	INFORMATION PROCESSING LETTERS	2017
25	Corrigendum to "Asymmetric polygons with maximum area" [European Journal of Operational Research 248(3) (2016) 1123-1131] (S0377221715007304) (10.1016/j.ejor.2015.08.013))	RUY FABILA MONROY Barba L. Caraballo L.E. et al.	EUROPEAN JOURNAL OF OPERATIONAL RESEARCH	2016
26	Asymmetric polygons with maximum area	RUY FABILA MONROY Barba L. Caraballo L.E. et al.	EUROPEAN JOURNAL OF OPERATIONAL RESEARCH	2016

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27	On k-gons and k-holes in point sets	RUY FABILA MONROY HERNAN GONZALEZ AGUILAR MARCO ANTONIO HEREDIA VELASCO et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2015
28	Empty non-convex and convex four-gons in random point sets	RUY FABILA MONROY Huemer C. Mitsche D.	STUDIA SCIENTIARUM MATHEMATICARUM HUNGARICA	2015
29	(n,m)-fold covers of spheres	RUY FABILA MONROY Bárány I. Vogtenhuber B.	PROCEEDINGS OF THE STEKLOV INSTITUTE OF MATHEMATICS	2015
30	Characterization of Extremal Antipodal Polygons	RUY FABILA MONROY Aichholzer O. Caraballo L.E. et al.	GRAPHS AND COMBINATORICS	2015
31	Embedding the double circle in a square grid of minimum size	RUY FABILA MONROY JOSE DAVID FLORES PEÑALOZA Bereg S. et al.	INT J COMPUT GEOM AP	2014
32	Note on the number of obtuse angles in point sets	RUY FABILA MONROY Huemer C. Tramuns E.	INT J COMPUT GEOM AP	2014
33	Computational search of small point sets with small rectilinear crossing number	RUY FABILA MONROY López J.	Journal of Graph Algorithms and Applications	2014
34	On the number of radial orderings of planar point sets	RUY FABILA MONROY Miguel Díaz-Báñez J. Pérez-Lantero P.	DISCRETE MATHEMATICS AND THEORETICAL COMPUTER SCIENCE	2014
35	The number of empty four-gons in random point sets	RUY FABILA MONROY Huemer C. Mitsche D.	Electronic Notes in Discrete Mathematics	2014
36	Lower bounds for the number of small convex k-holes	RUY FABILA MONROY Aichholzer, Oswin Hackl, Thomas et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2014

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37	4-Holes in point sets	RUY FABILA MONROY HERNAN GONZALEZ AGUILAR MARCO ANTONIO HEREDIA VELASCO et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2014
38	Colored ray configurations	RUY FABILA MONROY JORGE URRUTIA GALICIA García A. et al.	26th Canadian Conference On Computational Geometry, Cccg 2014	2014
39	Order types and cross-sections of line arrangements in $R^3$	RUY FABILA MONROY JORGE URRUTIA GALICIA Aichholzer O. et al.	26th Canadian Conference On Computational Geometry, Cccg 2014	2014
40	Drawing the Horton set in an integer grid of minimum size	LUIS ALBERTO BARBA PINGARRON RUY FABILA MONROY Hidalgo-Toscano, C. et al.	26th Canadian Conference On Computational Geometry, Cccg 2014	2014
41	Non-crossing matchings of points with geometric objects	RUY FABILA MONROY Aloupis, Greg Cardinal, Jean et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2013
42	Blocking Delaunay triangulations	RUY FABILA MONROY Aichholzer, Oswin Hackl, Thomas et al.	COMPUTATIONAL GEOMETRY-THEORY AND APPLICATIONS	2013
43	The Erdos-Sos Conjecture for Geometric Graphs	RUY FABILA MONROY Barba, Luis Lara, Dolores et al.	DISCRETE MATHEMATICS AND THEORETICAL COMPUTER SCIENCE	2013
44	Rooted $K-4$ -Minors	RUY FABILA MONROY Wood, David R.	ELECTRONIC JOURNAL OF COMBINATORICS	2013

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45	On the connectedness and diameter of a geometric Johnson Graph	JAVIER CANO VILA RUY FABILA MONROY JOSE DAVID FLORES PEÑALOZA et al.	DISCRETE MATHEMATICS AND THEORETICAL COMPUTER SCIENCE	2013
46	Lower bounds for the number of small convex k-holes	RUY FABILA MONROY Aichholzer O. Hackl T. et al.	Proceedings Of The 24th Canadian Conference On Computational Geometry, Cccg 2012	2012
47	On the number of radial orderings of colored planar point sets	RUY FABILA MONROY Díaz-Báñez J.M. Pérez-Lantero P.	Lecture Notes in Computer Science	2012
48	The chromatic number of the convex segment disjointness graph	RUY FABILA MONROY Wood D.R.	Lecture Notes in Computer Science	2012
49	Convexifying monotone polygons while maintaining internal visibility	RUY FABILA MONROY JORGE URRUTIA GALICIA Aichholzer O. et al.	Lecture Notes in Computer Science	2012
50	Covering islands in plane point sets	RUY FABILA MONROY Huemer C.	Lecture Notes in Computer Science	2012
51	On k-gons and k-holes in point sets	RUY FABILA MONROY HERNAN GONZALEZ AGUILAR JORGE URRUTIA GALICIA et al.	Proceedings Of The 23rd Annual Canadian Conference On Computational Geometry, Cccg 2011	2011
52	Matching points with things	RUY FABILA MONROY Aloupis G. Cardinal J. et al.	Lecture Notes in Computer Science	2010



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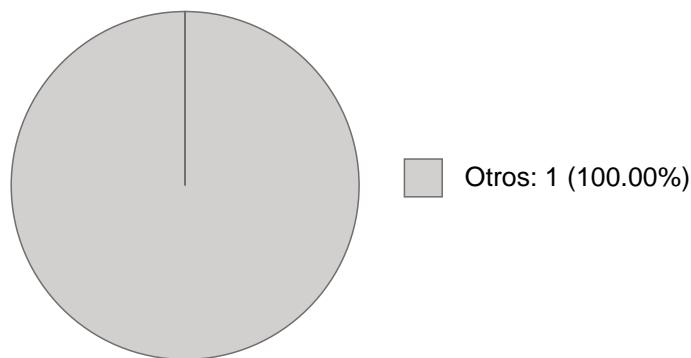
53	Blocking delaunay triangulations	RUY FABILA MONROY Aichholzer O. Hackl T. et al.	Proceedings Of The 22nd Annual Canadian Conference On Computational Geometry, Cccg 2010	2010
54	Empty monochromatic triangles	RUY FABILA MONROY JOSE DAVID FLORES PEÑALOZA Aichholzer O. et al.	Proceedings Of The 20th Annual Canadian Conference On Computational Geometry, Cccg 2008	2008
55	Graham triangulations and triangulations with a center are hamiltonean	RUY FABILA MONROY JORGE URRUTIA GALICIA	INFORMATION PROCESSING LETTERS	2005



**RUY FABILA MONROY**

**LIBROS Y CAPITULOS CON ISBN**

**Obras con registro ISBN**



#	Título	Autores	Alcance	Año	ISBN
1	Patrolling a terrain with cooperative UAVs using random walks	RUY FABILA MONROY Caraballo L.E. Díaz-Bañez J.M. et al.	Conferencia y Paper	2019	9781728103327



**Sistema Integral de Información Académica**  
**Coordinación de Planeación, Evaluación y**  
**Simplificación de la Gestión Institucional**  
**Reporte individual**



**RUY FABILA MONROY**

**PARTICIPACIÓN EN PROYECTOS**

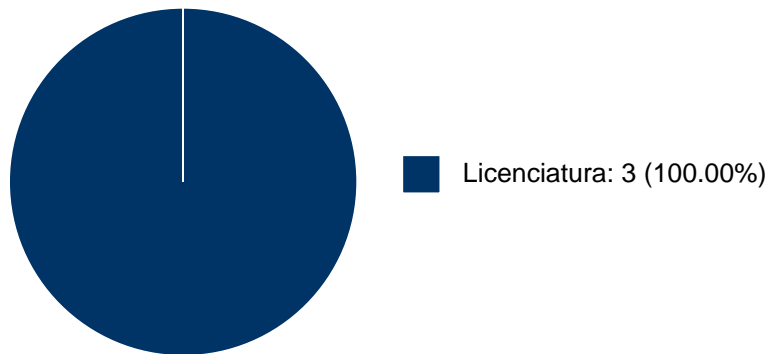
**No se encuentran registros en la base de datos de SISEPRO asociados a:**

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**PARTICIPACIÓN EN TESIS**

**Histórico de Colaboraciones en Tesis**



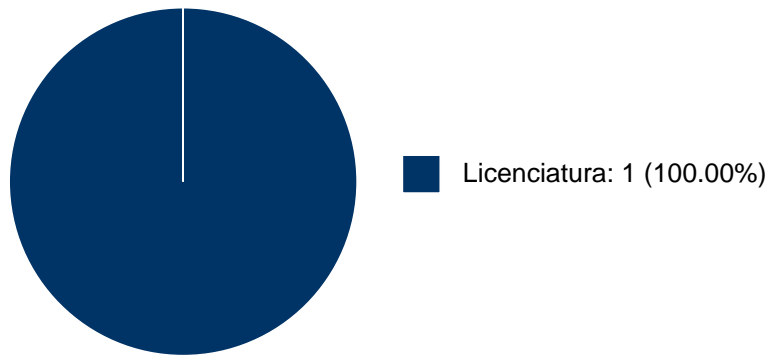
#	Título del documento	Tipo de Tesis	Sinodales	Autores	Entidad	Año
1	Un algoritmo para contar polígonos convexos vacíos en conjuntos de puntos en el plano	Tesis de Licenciatura	RUY FABILA MONROY,	Hidalgo Toscano, Carlos Miguel,		2013
2	Iluminación con k modems	Tesis de Licenciatura	RUY FABILA MONROY,	JORGE URRUTIA GALICIA, Ruiz Vargas, Andrés Jacinto,	Facultad de Ciencias, Instituto de Matemáticas,	2009
3	Convexos de pesos particulares sobre conjuntos de puntos etiquetados	Tesis de Licenciatura	RUY FABILA MONROY,	JORGE URRUTIA GALICIA, Rojas Avella, Joel David,	Facultad de Ciencias, Instituto de Matemáticas,	2009



**RUY FABILA MONROY**

**DOCENCIA IMPARTIDA**

**Histórico de docencia**



#	Nivel titulación	Asignatura	Entidad	Alumnos	Semestre
1	Licenciatura	ANALISIS DE ALGORITMOS II	Facultad de Ciencias	5	2009-1



**Sistema Integral de Información Académica**  
**Coordinación de Planeación, Evaluación y**  
**Simplificación de la Gestión Institucional**  
**Reporte individual**



**RUY FABILA MONROY**

**PATENTES**

**No se encuentran registros en la base de datos de patentes asociados a:**

**RUY FABILA MONROY**

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**FUENTES DE INFORMACIÓN**

**Internos**

#	Información	Fuente	Sistema	Periodo
1	Grupos ordinarios y resumen de historias académicas	DGAE	SIAE	2008-2025
2	Nombramientos, datos generales, estímulos, premios y reconocimientos	DGAPA	RUPA	2008-2025
3	Producción Académica	CH	Humanindex	2008-2021
4	Producción Académica	CIC	SCIC	2000-2017
5	Proyectos	DGPO	SISEPRO	2018-2022
6	Tesis	DGB	TESIUNAM	2008-2024
7	Tutorías en Posgrado	CGEP	SIIPosgrado	2008-2021

**Externos**

#	Información	Fuente	Sistema	Periodo
8	Documentos Indexados	Elsevier	Scopus	2008-2025
9	Documentos Indexados	Thomson Reuters	WoS	2008-2025
10	Obras con registro ISBN	INDAUTOR	Agencia ISBN	2008-2025
11	Patentes	IMPI	SIGA	2008-2024