Marcos Tirador   Curriculum Vitae

Contact Information

Full name: Marcos Manuel Tirador Del Riego
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I am an instructor of Data Structures and Algorithms in the Computer Science program at the University of Havana. I recently graduated with a bachelor's degree in Computer Science from the University of Havana, supervised by Dr. Felix Gotti and Dr. Luis Ramiro Piñeiro. I have an strong inclination for Mathematics and I am currently working on my application to graduate school in Mathematics. My main research interest is algebra with emphasis on the atomic structure of commutative rings and monoids. During the past 4 years, I have been conducting research in factorization theory under the supervision of Dr. Felix Gotti.

Education

PERIOD	**September 2019 — January 2024**
DEGREE	**Bachelor of Science in Computer Science**
RANK	**Top of the class, golden diploma, outstanding in research and academics**
UNIVERSITY	**University of Havana** Havana, Cuba

PERIOD	**September 2015 — May 2018**
DEGREE	**High School Diploma**
SCHOOL	**Vocational Pre-University Insitute of Exact Sciences Vladimir I. Lenin** Havana, Cuba

Work Experience

PERIOD	**January 2024 — Present Day**
EMPLOYER	**Department of Mathematics and Computer Science**
JOB TITLE	**Researcher and instructor**
UNIVERSITY	**University of Havana** Havana, Cuba

Scientific Publications

(1) *On the set of molecules of numerical and puiseux monoids*
(with Marly Gotti)
In: Rings, Monoids and Module Theory, Springer Proceedings in Mathematics & Statistics book series (Eds. A. Badawi and J. Coykendall). Springer, Singapore. Vol. 382 (2022) 111–125, doi:10.1007/978-981-16-8422-7_5.

(2) *Factorization in additive monoids of evaluation polynomial semirings*
(with K. Ajran, J. Bringas, Bangzheng Li & E. Singer)
Communications in Algebra, Vol. 51:10 (2023) 4347-4362, doi:10.1080/00927872.2023.2208672.
(3) *Subatomicity in Rank-2 Lattice Monoids*
(with C. Liu & P. Rodriguez)
Journal of Commutative Algebra (to appear). Preprint on ArXiv.

Awards

2024	**World Finalist at the International Collegiate Programming Contest (ICPC)**
2022	**Bronze Medal at the XXV Iberoamerican University Mathematical Olympiad**
2022	**Honorable Mention at the International Mathematics Competition for University Students**
2021	**Bronze Medal at the International Mathematics Competition for University Students**
2021	**Gold Medal at the Caribbean Finals of the International Collegiate Programming Contest (ICPC)**
2020	**Bronze Medal at the Caribbean Finals of the International Collegiate Programming Contest (ICPC)**
2018	**Bronze Medal at the Iberoamerican Mathematics Olympiad**
2017	**Honorable Mention at the International Mathematical Olympiad (IMO)**
2016	**Honorable Mention at the Central American and Caribbean Mathematics Olympiad**

Teaching Experience

Period	**February 2024 — Present Day**	
Topics	**Introduction to Programming with Python**	
Position	**Instructor**	
Where	**Department of Mathematics and Computer Science**	Havana, Cuba

Period	**February 2024 — Present Day**	
Topics	**Data Structures and Algorithms**	
Position	**Instructor**	
Where	**Department of Mathematics and Computer Science**	Havana, Cuba

PERIOD	February 2022 — January 2023	
TOPICS	**Data Structures and Algorithms**	
POSITION	**Student Assistant**	
WHERE	**Department of Mathematics and Computer Science**	Havana, Cuba

PERIOD	May 2019 — August 2019	
TOPICS	**Number Theory, Algebra and Combinatorics**	
POSITION	**Math Instructor**	
WHERE	**Cuban teams training for international competitions**	Havana, Cuba

TECHNICAL SKILLS

Programming languages: Python, C#, JavaScript, C, C++, Haskell, Prolog, R (with a higher level of expertise in the first two).

Others: .NET Core, ASP.NET, Node.js, React, MySQL, Keras.