Carlos Ospina

CONTACT INFORMATION	School of Mathematical Sciences Tel Aviv University Tel Aviv, Israel	⌂ https://CarlosOspinaMath.github.io ✉ ospina.math@icloud.com

CURRENT POSITION

Postdoctoral Fellow
Tel Aviv University, Israel

RESEARCH INTERESTS

My research interests are dynamical systems and ergodic theory —particularly studying dynamics on translation surfaces and their strata, interval exchange transformations and entropy.

EDUCATION

University of Utah, Salt Lake City, USA   Aug 2019 - May 2025
Ph.D. in Mathematics (Advisor: Jon Chaika)

International Centre for Theoretical Physics ICTP, Trieste, Italy   Sep 2018 - Aug 2019
Postgraduate Diploma in Mathematics (Advisor: Emmanuel Carneiro)

Universidad Nacional de Colombia, Manizales, Colombia   Jan 2015 - Jan 2017
M.Sc. in Applied Mathematics (Advisor: Juan Carlos Riaño)

Universidad Nacional de Colombia, Manizales, Colombia   Jan 2010- Dec 2014
B.Sc. in Mathematics

PUBLICATIONS & PREPRINTS

4. **Coboundaries of 3-IETs**
(with P. Berk)
Submitted. Available at: arXiv:2501.06380 [math.DS] (2025)

3. **Some real Rel trajectories in $\mathcal{H}(1,1)$ that are not recurrent**
Submitted. Available at: arXiv:2406.07495 [math.DS] (2024)

2. **Slow entropy and variational dynamical systems**
Mathematics Research Reports, **6** (2025), pp. 17-49 (with M. Cheng, K. Vinhage, and Y. Zhai)

1. **Thurston's Theorem: Entropy in Dimension One**
Math. Res. Lett. **31** (2024), no. 1, pp. 127-174 (with R. Dickmann, G. Domat, T. Hill, S. Kwak, P. Patel, and R. Rechkin)

MENTORING & SERVICE

Pares Ordenados. Virtual reading program in mathematics dedicated to Spanish-speaking students. Mentor and co-organizer.   Jan 2023 - Jun 2025
ninyam.github.io/paresordenados

Ergodic Theory and Dynamical Systems Seminar. Co-organizer   Aug 2024 - Jan 2025

AWM mentoring network. Mentor   Aug 2023 - Jun 2024

Geometry, Topology and Dynamics Grad Student Seminar. Co-organizer   Aug 2022 - Jun 2023

TEACHING

UNIVERSITY OF UTAH:

Businesa Algebra, Instructor   Fall 2024

Business Algebra (Online), Instructor   Summer 2024

Businesa Algebra, Instructor   Fall 2023

Pre-REU: Approximately Rational Numbers and Continued Fractions, TA   Summer 2023

Trigonometry, Instructor   Fall 2022

Calculus I, Instructor   Fall 2021

Pre-REU: Hidden Structure and Computation, TA   Summer 2021

Business Algebra (Online), Instructor   Fall 2020

	Calculus II (Online), Instructor	Summer 2020
	Engineering Calculus II, TA	Spring 2020
	Engineering Calculus I, TA	Fall 2019
Talks	**Some real Rel trajectories in $\mathcal{H}(1,1)$ are not recurrent** University of Zurich	Jun 2024
	Some real Rel trajectories in $\mathcal{H}(1,1)$ are not recurrent *Group Actions Seminar*, University of California, San Diego	May 2024
	Some real Rel trajectories in $\mathcal{H}(1,1)$ are not recurrent *Max Dehn Seminar*, University of Utah	Apr 2024
	Some real Rel trajectories in $\mathcal{H}(1,1)$ are not recurrent *School on Flat Surfaces and Interactions*, Le Teich, France	Mar 2024
	Slow Entropy of Sturmian Shifts and 3-IETs *Utah Dynamics Mini-Workshop*, University of Utah	Dec 2023
	Real Rel Flow *Wasatch Topology Conference*, University of Utah	Oct 2023
	Regularity of the Cohomological Equation for Circle Rotations *Online Working Seminar*, University of Utah	Apr 2023
	Interval Exchange Transformations & Translation Surfaces *Geometry, Topology and Dynamics Grad Student Seminar*, University of Utah	Feb 2023
	The Three Gap Theorem *Geometry, Topology and Dynamics Grad Student Seminar*, University of Utah	Oct 2022
	Maximal Functions *Analysis Seminar*, University of Utah	Oct 2022
Summer Schools, Conferences & Research Communities	**Recent Trends in Homogeneous and Teichmuller Dynamics** Brin Institute of Mathematics	Sep 2024
	NU Trends in Ergodic Theory Northwestern University	Jul 2024
	New Frontiers in Parabolic Dynamics and Renormalization University of Bologna	Jun 2024
	School on Flat Surfaces and Interactions Le Teich	Mar 2024
	Wasatch Topology Conference University of Utah	Oct 2023
	Dynamics Summer School Northwestern University	Jun 2023
	Big Ideas in Dynamics. An Online Research Community AIM	Spring 2023
	Combinatorics, Dynamics and Geometry on Moduli Spaces CIRM	Sep 2022
	Wasatch Topology Conference University of Utah	Aug 2022
	Houston Workshop in Hyperbolic Dynamics University of Houston	Jun 2022
	Ergodic Theory and its Connections: A Conference in Honor of the Legacy of Michael Boshernitzan Rice University	Jun 2022