

Shalom Cristina Echalaz Alvarez

Email: shalom.echalaz26@gmail.com

Education

Bachelor in Science (Mathematics)

Juárez Autonomous University of Tabasco (UJAT)

August 2014 - June 2019.

Advisors: Luis Núñez Betancourt, Carlos Ariel Pompeyo Gutiérrez.

Thesis: *Frobenius over valuation rings*.

Master in Science (Mathematics)

Centro de Investigación en Matemáticas, A.C. (CIMAT)

August 2020 - June 2022

Advisor: Luis Núñez Betancourt

Thesis: Characteristic p structure of local cohomology

PhD in Mathematics

University of Nebraska-Lincoln

August 2022 -

Advisor: Jack Jeffries, Thomas Marley

Thesis:

Honorable mentions

2021-Sotero Prieto Award Mexican Mathematic Society (national award to the best thesis in mathematics).

Posters

- "It is not a coincidence that you get tangled" (Introduction to knot theory and its applications in the DNA) 2016, 49th Mexican Mathematical Society's National Congress.
- "Bézout theorem" 2017, 50th Mexican Mathematical Society's National Congress.
- "Primary decomposition of ideals" 2018, 51th Mexican Mathematical Society's National Congress.
- "Cohen-Macaulay rings" 2019, 52th Mexican Mathematical Society's National Congress.

Seminars

- "How to win a car" (Explanation of the Monty Hall Problem) 2015, 5th National Congress of Basic Science (UJAT).
- "Monty Hall problem" 2015, Probability and statistics seminar (UJAT).
- "Knot theory and its relation with the DNA" 2016, Algebra, Geometry and Topology seminar (UJAT).
- "An application of differential equations on a model of a knee" 2017, Algebra, Geometry and Topology seminar (UJAT).
- "Valuation rings" 2019, Students seminar (CIMAT).
- "Valuation rings" 2019, Algebra, Geometry and Topology seminar (UJAT).
- "VF-injectivity and Frobenius closure of ideals" 2021, Students seminar (CIMAT).

Summer programs

- XIII Scientific Research Summer UJAT 2017 at Osaka City University with Taizou Kanenobu as advisor.
- XXIX Scientific Research Summer AMC 2019 at CIMAT with Luis Núñez Betancourt as advisor.

Schools and workshops attended

- "Introducción a la geometría Algebraica" 2014 UJAT.
- "Fico González Acuña. Nudos y 3 variedades" 2016 and 2018 CIMAT.
- "Topological and analytical methods in singularity theory" 2019 CIMAT.
- "3ra Escuela de otoño de Algebra Conmutativa" 2019 CIMAT.
- "Métodos p-ádicos en Teoría de Hodge" 2019 CIMAT campus Mérida.

Teaching assistant experience

- Linear Algebra 1, spring 2021 DEMAT.
- Algebra and Applications, fall 2021 DEMAT
- Calculus 3, spring 2021 DEMAT
- Calculus 2, fall 2022 UNL
- Calculus 2, spring 2023 UNL

Instructor of record experience

- College Algebra, fall 2023 UNL.

Languages

Spanish - native,

English - upper-intermediate,

Chinese - HSK 5,

Japanese - Japanese Profency Test N4.

Last updated: August 14, 2023