Rubén Izquierdo-López, Master student

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My personal webpage

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Teaching experience

2022-2023 **Teaching assistant** in "Matemáticas Básicas" at Universidad Complutense de Madrid.

2020-2022 **Support Teacher** at Savannah SLC in Torrejón de Ardoz.

Research experience

Severo Ochoa contract for Master students in CSIC (Instituto de Ciencias Matemáticas) supervised by Prof. Manuel de León.

JAE Intro research grant supervised by Prof. Manuel de León.

Education

2023–now Master's degree in Advanced Mathematics, (average of 9.77/10) in Universidad Complutense de Madrid.

Thesis title: Coisotropic reduction in Multisymplectic Geometry. Advisor: Manuel de León Rodríguez. **Grade**: 10.

2019-2023

Bachelor's degree in Mathematics, (average of 9.44/10) in Universidad Complutense de Madrid. I was awarded with "premio excelencia UCM", for one of the best academic records in Mathematics.

Thesis title: Simplicial and Cellular Homology. **Advisor**: Manuel Alonso Morón. **Grade**: 9.7/10.

Languages

Spanish: Native

English: C1, 100/120 on TOEFL.

Grants

- Excellence grant" of Comunidad de Madrid in academic years 2020-2021, 2021-2022, 2022-2023.
- **JAE Intro research grant.**

Schools and conferences

June 2024 XVI International ICMAT Summer School on Geometry, Dynamics and Field theory in Miraflores de la Sierra, Madrid.

The Geometry of Field Theories in Real Colegio de Santa Cristina, Madrid. Gave a short talk on "Coisotropic reduction in Multisymplectic Geometry".

February 2024

XVIII International Young researchers Workshop in Geometry, Dynamics and Field Theory in Warsaw University. Gave a short talk on "Coisotropic reduction in different phase spaces".

Schools and conferences (continued)

January 2024 XXV Winter Meeting on Geometry, Dynamics and Field Theory in Universidad de Zaragoza.

December 2023 de León fest in ICMAT.

November 2023 **BYMAT** in ICMAT. Gave a short talk on "Coisotropic reduction in symplectic, cosymplectic, contact and cocontact geometry".

July 2023 **JAE summer School** in ICMAT.

Talks and seminars

June 2024 Gamma Seminar, online. Gave a talk on "Coisotropic reduction in Multisymplectic Geometry".

The Geometry of Field Theories in Real Colegio de Santa Cristina, Madrid. Gave a short talk on "Coisotropic reduction in Multisymplectic Geometry".

February 2024 XVIII International Young researchers Workshop in Geometry, Dynamics

and Field Theory in Warsaw University. Gave a short talk on "Coisotropic reduction in different phase spaces".

November 2023 BYMAT in ICMAT. Gave a short talk on "Coisotropic reduction in symplectic, cosymplectic, contact and cocontact geometry".

Volunteering

July 2024 Assistant in ECM (European Congress of Mathematics) at Universidad de Sevilla.

April 2023 Assistant in "Concurso de Primavera" at Universidad Complutense de Madrid.

Research Publications

Journal Articles

M. de León and R. Izquierdo-López, "A review on coisotropic reduction in symplectic, cosymplectic, contact and co-contact hamiltonian systems," *Journal of Physics A: Mathematical and Theoretical*, vol. 57, no. 16, p. 163 001, Apr. 2024. ODI: 10.1088/1751-8121/ad37b2.

Preprints

M. de León and R. Izquierdo-López, Coisotropic reduction in multisymplectic geometry, 2024. arXiv: 2405.12898 [math.SG].