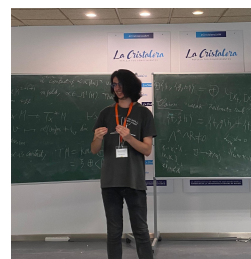# Rubén Izquierdo-López, Master student

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Last updated: August 24, 2024

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

2023-2024   **Severo Ochoa contract for Master students** in CSIC (Instituto de Ciencias Matemáticas) supervised by Prof. Manuel de León.

2023   **JAE Intro research grant** supervised by Prof. Manuel de León.

Education

2024– *now*   I am currently a PhD student in Mathematics under the supervision of prof. Manuel de León.

2023–2024   **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

Severo Ochoa grant for Master students in academic year 2023-2024.

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

JAE Intro research grant.

Schools and conferences

August 2024   **Workshop on Geometric Aspects of Material Modelling** in UNED, Madrid. Gave a talk on "The Multisympelctic framework of Field Theories".

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

Schools and conferences (continued)

	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".
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

August 2024	**Workshop on Geometric Aspects of Material Modelling** in UNED, Madrid. Gave a talk on "The Multisympelctic framework of Field Theories".
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

1. 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. 🔗 DOI: 10.1088/1751-8121/ad37b2.

Preprints

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