

Manuel Lainz Valcázar

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Education

- 2017–2018 **Master in Mathematics**, *Universidad de Autónoma de Madrid, Madrid, Mark: 9.67* .
- 2014–2017 **Degree in mathematics**, *Universidad de Cantabria, Santander, Mark: 8.865. Premio Extraordinario de Fin de Carrera.*
- 2012–2016 **Degree in Physics**, *Universidad de Cantabria, Santander, Mark: 8.81.*
- 2015–2016 **Exchange program during undergraduate studies**, *Princeton University, Princeton*, I took some courses on both Mathematics and Physics, and wrote my Physics undergraduate thesis.

Research and teaching experience

- 2018–Now **PhD. Program at ICMAT-UAM**, *PhD thesis on Contact Hamiltonian Systems, under the supervision of Prof. Manuel de León.*
- 2017 **Teacher assistant on Física Cuántica III (Solid state Physics)**, *Universidad de Cantabria, Santander.*

Workshops and conference assistance

- 2018 First BYMAT conference: Bringing Young Mathematicians Together (ICMAT).
- 2018 JAE summer school. Courses on Topology of nodal sets of solutions to elliptic PDEs and Geometric group theory
- 2018 XXVII International Fall Workshop on Geometry and Physics (IMUS).
- 2019 Second BYMAT conference (ICMAT)
Poster presentations
- 2019 International ICMAT Summer School on Geometry, mechanics and control.
- 2019 XXVIII International Fall Workshop on Geometry and Physics (ICMAT).
- 2019 14th International Young Researchers Workshop on Geometry, Mechanics and Control (Göttingen).
Talks
- 2019 UAM-ICMAT Junior seminar.
- 2020 XXVIII International Fall Workshop on Geometry and Physics (ICMAT).
- 2020 V Congreso de Jóvenes Investigadores de la RSME (Universitat Jaume I, Castellò) .
- 2020 XXI Winter Meeting on Geometry, mechanics and control (Universidade de Santiago de Compostela) .

Languages

Spanish Native

English Advanced (C1)

103 points on T.O.E.F.L.
Advanced level on the Spanish Escuela Oficial de Idiomas
Trinity level 8
1 year of studies on Princeton University

Awards

2016 Bronze Medal on International Mathematics Competition for University Students en Blagoevgrad, Bulgaria.

Publications

- [1] Michael Aizenman, Manuel Laínz Valcázar, and Simone Warzel. "Pfaffian Correlation Functions of Planar Dimer Covers". In: *Journal of Statistical Physics* 166.3 (2017), pp. 1078–1091. ISSN: 1572-9613. DOI: 10.1007/s10955-016-1684-8.
- [2] Manuel de León and Manuel Lainz Valcázar. "Contact Hamiltonian Systems". In: *Journal of Mathematical Physics* (Nov. 2018). DOI: 10.1063/1.5096475. arXiv: 1811.03367.
- [3] Manuel de León and Manuel Lainz Valcázar. "Singular Lagrangians and Precontact Hamiltonian Systems". In: *Int. J. Geom. Methods Mod. Phys.* (Aug. 2019), p. 1950158. ISSN: 0219-8878. DOI: 10.1142/S0219887819501585.
- [4] Manuel de León et al. "Unified Lagrangian-Hamiltonian Formalism for Contact Systems". en. In: *Fortschr. Phys.* 68.8 (Aug. 2020), p. 2000045. ISSN: 0015-8208, 1521-3978. DOI: 10.1002/prop.202000045.
- [5] Manuel de León and Manuel Lainz Valcázar. "Infinitesimal Symmetries in Contact Hamiltonian Systems". en. In: *Journal of Geometry and Physics* 153 (July 2020), p. 103651. ISSN: 03930440. DOI: 10.1016/j.geomphys.2020.103651.
- [6] Alexandre Anahory Simoes et al. "Contact Geometry for Simple Thermodynamical Systems with Friction". en. In: *Proc. R. Soc. A.* 476.2241 (Sept. 2020), p. 20200244. ISSN: 1364-5021, 1471-2946. DOI: 10.1098/rspa.2020.0244.