Manuel Cañizares

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Place of birth: Chiclana de la Frontera, Spain ✷ *Date of birth:* 03/02/1996

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Positions

RICAM (Johann Radon Institute for Computational and Applied Mathematics) / OEAW (Austrian Academy of Sciences)   *Novemeber 2024 - now*
Postdoctoral researcher   *Linz, Austria*

- Working under the supervision of Otmar Scherzer.

BCAM (Basque Center for Appplied Mathematics)   *September 2020 - October 2024*
PhD Student   *Bilbao, Spain*

- Working under the supervision of Pedro Caro in the project *Interplays between Harmonic Analysis and Inverse Problems*, with a grant from the Spanish Research Agency (AEI), with reference *PRE2019-091776*

Education

PhD in Mathematics   *2024*
Doctoral program in mathematics and statistics   *UPV/EHU*
Title: Identifying quantum hamiltonians in the presence of electric interactions. An analytic approach.
Grade: Cum Laude
Supervisor: Pedro Caro
Tribunal: Alberto Ruiz, Luz Roncal and Tony Liimatainen

Master's degree in Mathematical Physics   *2020*
Master's program FISyMAT   *Universidad de Granada*
Final grade: 8.72/10 - 2.6/4
Master's thesis: Synchronization and Aggregation models. The swarmallators model.
Supervisor: Juan Soler

Bachelor's degree in Physics   *2018*
Double bachelor's program in physics and mathematics   *Universidad de Sevilla*
Final grade: 7.32/10 - 1.83/4
Bachelor's thesis: Width of Interfaces in the 2-Dimensional Ising Model.
Supervisor: Gernot Münster (written during my Erasmus stay at WWU Münster, Germany)

Bachelor degree in Mathematics   *2018*
Double bachelor's program in physics and mathematics   *Universidad de Sevilla*
Final grade: 7.86/10 - 2.05/4

Publications

Local near-field scattering data enables unique reconstruction of rough electric potentials   *2024*
*Inverse Problems **40** 065004*   *DOI,arXiv*
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Interface Roughening in Two Dimensions   *2021*
*Journal of Statistical Physics, **182**, 61*   *DOI,arXiv*
Gernot Münster & Manuel Cañizares

Talks

Indentifying electric potentials via the local near-field scattering pattern at fixed energy *2024*
Inverse Problems and Mathematical Imaging group seminar *RICAM. Linz, Austria*
Seminar talk

Indentifying electric potentials via the local near-field scattering pattern at fixed energy *2024*
9th European Congress of Mathematics. Minisymposium: Analytical, computational and geometrical approaches to inverse problems. *Sevilla, Spain*
Invited mini-symposium talk

Indentifying electric potentials via the local near-field scattering pattern at fixed energy *2024*
IV Mathematical Analysis Days *Universidad de La Rioja. Logroño, Spain*
Invited talk

Indentifying electric potentials via the local near-field scattering pattern at fixed energy *2024*
Seminari d'Analisi de Barcelona *UPC, UB and UAB. Barcelona, Spain*
Seminar talk

Determination of delta-shell and critically-singular potentials with local near-field scattering data *2023*
HAPDEGMT *UPV/EHU. Bilbao, Spain*
Short talk

Determination of delta-shell and critically-singular potentials with local near-field scattering data *2022*
Inverse Days *FIPS and University of Eastern Finland. Kuopio, Finland*
Short talk

Grants and Scholarships

Aid for pre-doc contracts for the training of doctors 2019 *2020-2024*
AEI (Agencia Estatal de Investigación) *Spain*
Reference: PRE2019-091776

Erasmus+ Scholarship *2017-2018*
Stay at WWU Münster, Germany

Scholarship for Undergraduate studies *2013-2020*
Spanish Ministry of Education *Spain*

Technical skills

Programming Languages/Tools C, C++, Java, Python, LaTeX, Matlab, Haskell

Language proficiencies

Spanish Native
English Fluent. CAE degree by Cambridge (C1) obtained in 2012
Italian Medium level
French Basic level

References

Pedro Caro. PhD supervisor   pcaro@bcamath.org
Ioannis Parissis. Collaborator   ioannis.parissis@gmail.com
Juan Soler. Master's thesis supervisor   jsoler@ugr.es
Gernot Münster. Bacherlor's thesis supervisor   munsteg@uni-muenster.de