

# ROBERTO GIMÉNEZ CONEJERO

Alfréd Rényi Institute of Mathematics  
Reáltanoda u. 13-15  
HU 1053 Budapest, Hungary  
roberto.gimenez@uv.es  
[rgimenezconejero.github.io](https://github.com/rgimenezconejero)  
ORCID: 0000-0003-1059-3818

## EDUCATION

---

### Ph.D in Mathematics

Thesis: *Singularities of germs and vanishing homology* 2017–2021  
Advisor: J. J. Nuño-Ballesteros  
*Universitat de València*, Valencia, Spain

### M.Sc. in Mathematics and Applications

Thesis: *Vanishing cycles for analytic maps.* 2016–2017  
External advisor: J. J. Nuño-Ballesteros. Internal tutor: O. Villamayor  
*Universidad Autónoma de Madrid*, Madrid, Spain

### B.Sc. in Mathematics

Thesis: *Maps from the plane to the plane and a theorem of Haefliger.* 2012–2016  
Advisor: R. Oset Sinha  
*Universitat de València*, Valencia, Spain

## DISTINCTIONS AND GRANTS

---

**Vicent Caselles prize** 2023  
*Spanish Royal Society of Mathematics (RSME) and BBVA bank*

**Rényi Postdoctoral Fellowship** 2021–now  
*Alfréd Rényi Institute of Mathematics*

**Predoctoral grant** 2017–2021  
*Ministerio de Ciencia, Innovación y Universidades Grant FPU16/03844*

**M.Sc. Grant** 2016–2017  
of the Department of Mathematics of *Universidad Autónoma de Madrid*

**Bachelor's Degree Excellence Award** 2016  
*Universitat de València*

**Overall classification of the Bachelor's Degree** 2016  
9.76/10 and 3.76/4

**B.Sc. Grant** 2012–2016  
*Ministerio de Educación y Formación Profesional General Grants (4 in total)*

**Collaboration Internship Grant** 2015–2016  
*Ministerio de Educación y Formación Profesional*

**Severo-Ochoa-ICMAT grant: Introduction to research** 2016  
*Instituto de Ciencias Matemáticas*, Madrid

## PUBLICATIONS

---

**The image Milnor number and excellent unfoldings** (w/ J.J. Nuño-Ballesteros),  
Q. J. Math., 2022, DOI: [10.1093/qmath/haab019](https://doi.org/10.1093/qmath/haab019)

**Singularities of mappings on ICIS and applications to Whitney equisingularity** (w/ J.J. Nuño-Ballesteros),  
Adv. Math., 2022, DOI: [10.1016/j.aim.2022.108660](https://doi.org/10.1016/j.aim.2022.108660)

**Thom condition and monodromy** (w/ Lê Dũng Tráng and J.J. Nuño-Ballesteros),  
Rev. R. Acad. Cienc. Exactas Fís. Nat. Ser. A Mat. RACSAM, 2022, DOI: [10.1007/s13398-022-01353-y](https://doi.org/10.1007/s13398-022-01353-y)

**A weak version of the Mond conjecture** (w/ J.J. Nuño-Ballesteros),  
Collect. Math., 2023, DOI: [10.1007/s13348-023-00411-x](https://doi.org/10.1007/s13348-023-00411-x)

**A note on complex plane curve singularities up to diffeomorphism and their rigidity** (w/ A. Fernández-Hernández),  
Res. Math. Sci., 2024, DOI: [10.1007/s40687-024-00439-w](https://doi.org/10.1007/s40687-024-00439-w)

## SENT MANUSCRIPTS

**Isotypes of ICIS and images of deformations of map germs**,  
[arXiv:2207.05196](https://arxiv.org/abs/2207.05196)

**Signature of the Milnor fiber of parametrized surfaces** (w/ G. Pintér),  
[arXiv:2401.14951](https://arxiv.org/abs/2401.14951)

## PRESENTATIONS

---

### COURSES

- |   |           |
|---|-----------|
| <b>Curve singularities and their deformations</b> (TA session)<br><i>Winter school in singularities and low-dimensional topology</i> , Rényi Institute    | 2023      |
| <b>Projective geometry</b> (in Spanish) ( <a href="#">videos</a> )<br><i>Summer school SEMF 2020</i> , On-line  | 2020      |
| <b>Introduction to topology</b> (in Spanish)<br><i>SEMF</i> and Faculty of Physics course, <i>Universitat de València</i>                                 | 2016      |
| <b>Simplicial and singular homology</b> (in Spanish), 20h<br>Extracurricular seminar, Department of Geometry and Topology, <i>Universitat de València</i> | 2015–2016 |

### INVITED TALKS

- |   |      |
|---|------|
| <b>Complex curve singularities modulo smooth diffeomorphism</b><br><i>Spanish Topology Meeting</i> , Alicante, Spain  | 2023 |
| <b>Halfway towards the Mond conjecture</b><br><i>The singular workshop</i> , Budapest, Hungary  | 2023 |
| <b>Computing signatures of nearby fibres of parametrized complex surfaces</b><br><i>VI Congreso de jóvenes investigadores de la RSME (Topology session)</i> , León, Spain | 2023 |
| <b>Computing a difficult invariant of holomorphic map germs</b><br><i>VI Congreso de jóvenes investigadores de la RSME (Singularities session)</i> , León, Spain          | 2023 |
| <b>Towards Mond's conjecture</b><br><i>17th International Workshop on Real and Complex Singularities</i> , São Carlos, Brazil   | 2022 |
| <b>Hazañas y enigmas de los gérmenes de aplicaciones holomorfas</b> (in Spanish)<br><i>Special hybrid workshop for PhD students in singularities</i> , Madrid, Spain      | 2021 |

## CONTRIBUTED AND SEMINAR TALKS

<b>Complex curve singularities modulo smooth diffeomorphism</b> <i>7th International Workshop on Singularities in Geometry and applications</i> , Fortaleza, Brazil	2023
<b>Complex curve singularities modulo smooth diffeomorphism</b> <i>1st Budapest – Cluj Meeting in Singularities and Beyond</i> , Cluj-Napoca, Romania	2023
<b>Signatures of Milnor fibers</b> <i>Algebraic Geometry and Differential Topology Seminar</i> , Rényi Institute, Budapest, Hungary	2023
<b>Feats and mysteries of holomorphic map germs</b> ( <a href="#">video</a> ) <i>Algebraic Geometry and Differential Topology Seminar</i> , Rényi Institute, Budapest, Hungary	2022
<b>Monodromía de gérmenes de funciones analíticas sin puntos fijos</b> <i>IX Encuentro de jóvenes topólogos</i> , Sevilla, Spain	2021
<b>Monodromy of germs of analytic functions without fixed points</b> ( <a href="#">video</a> ) <i>Iberoamerican Webinar of Young Researchers in Singularity Theory and related topics</i> , On-line	2021
<b>Monodromy of germs of analytic functions without fixed points</b> ( <a href="#">video</a> ) <i>16th International Workshop on Real and Complex Singularities</i> , São Carlos, Brazil	2020
<b>On Whitney equisingular unfoldings of corank 1 map germs</b> <i>V Congreso de Jóvenes Investigadores Castelló 2020</i> , Castellón, Spain	2020
<b>Monodromy of germs of analytic functions without fixed points</b> <i>3rd BYMAT Conference</i> (Bringing Young Mathematicians Together), Valencia, Spain	2020
<b>On Whitney equisingular unfoldings of corank 1 map germs</b> <i>6th International Workshop on Singularities in Generic Geometry and Applications</i> , Valencia, Spain	2019
(...)	
<b>A weak version of Mond's Conjecture for corank 1 maps and applications</b> <i>Congreso Bienal de la Real Sociedad Matemática Española 2019</i> , Santander, Spain	2019
(...)	

## POSTERS

<b>A weak version of Mond's Conjecture for corank 1 maps and applications</b> <i>15th International Workshop on Real and Complex Singularities</i> , São Carlos, Brazil	2018
--	------

## OTHER MERITS

---

### TEACHING EXPERIENCE

<b>Universitat de València: 180 h</b> Valencia, Spain	2018–2020
<b>Innovation in education article</b> <i>Comunidades de práctica predoctorales: Diez años del Seminari Predoc</i> (w/ E. Cosme Llópez, et al.) IN-RED 2022 <a href="https://doi.org/10.4995/INRED2022.2022.15977">https://doi.org/10.4995/INRED2022.2022.15977</a>	2022
<b>Budapesti Műszaki és Gazdaságtudományi Egyetem: 28 h</b> Budapest, Hungary	2023

### RESEARCH

<b>Extracurricular Internship</b> , <i>Ingenia-Telecom S.L.</i> (180h) Performing R&D in machine learning.	2015
<b>Collaboration Internship</b> , Department of Geometry and Topology, <i>Universitat de València</i> Learning Homology Theory and giving a seminar related to it. Supervisor: R. Oset Sinha.	2015–2016
<b>Introduction to research grant</b> , <i>Instituto de Ciencias Matemáticas</i> (Madrid)	2016

## EXPERIENCE IN ORGANISATION OF EVENTS

<b>6th International Workshop on Singularities in Generic Geometry and Applications</b>	2019
<b>IV SEMF's winter symposium</b>	2019
<b>VIII SEMF's summer school</b>	2020
<b>Predoc seminar in Universitat de València, Faculty of Mathematics</b>	2019–2021

## DISSEMINATION WORK / POPULAR SCIENCE

<b>What does <i>Mathematics</i> mean?</b> (in Spanish) Talk in Blasco Ibáñez Higschool, in Cullera (Valencia), Spain	2016
<b><i>Una oca en mi café</i> Cycle of talks</b> (in Spanish) ( <a href="#">videos</a> ) Organizer of this cycle of talks, Valencia, Spain	2018
<b>About brains and maths</b> (in Spanish) ( <a href="#">videos</a> ) In the cycle of talks <i>Una oca en mi café</i> , Valencia, Spain	2018
<b>Noosfera interview</b> (in Spanish) <i>La Razón's</i> podcast <i>Noosfera</i> ( <a href="#">link</a> ), Spain	2021