

Rubén Martos

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🔗 [Website](#)

👤 [ORCID](#)

Education

- 2014-2018 **Université Paris Diderot (Paris 7)**
PhD.
Thesis title: The Baum-Connes conjecture for quantum groups. Stabilization properties and K-theory computations.
Supervisor: Pierre Fima.
- 2013-2014 **Université Paris Diderot (Paris 7)**
M2, Mathématiques fondamentales.
Master dissertation: Groupes agissant sur un arbre et K-moyennabilité. Une introduction à la K-théorie.
Supervisor: Pierre Fima.
- 2012-2013 **Université Pierre et Marie Curie (Paris 6)**
M1, Mathématiques et Applications.
Master dissertation: Analyse Complexe à plusieurs variables. Le théorème de Hartogs.
Supervisor: Dinh Tien-Cuong.
- 2008-2012 **Universidad de Salamanca**
Bachelor in mathematics.
Bachelor's thesis: Existencia de funciones meromorfas en superficies de Riemann abiertas.
Supervisor: Pascual Cutillas Ripoll.

Academic Positions

- 2025– **Post-doctoral fellow within the Sorb’Rising program.**
Université Paris 1 Panthéon-Sorbonne: research and scientific communication duties.
Mentors: Alain Celisse and Stéphane Lamassé.
- 2024-2025 **Post-doctoral fellow within the FMJH and DataAI Institute**
Université d’Évry Paris-Saclay: research and scientific communication duties.
Mentors: Christophe Ambroise and Guillem Rigai.
- 2022-2024 **Post-doctoral fellow within the Labex CEMPI**
Université de Lille: research and scientific communication duties.
Mentor: Ivo Dell’Ambrogio.
- 2020-2022 **Post-doctoral fellow Marie Skłodowska-Curie**
University of Copenhagen: research and scientific communication duties.
- 2018-2020 **Post-doctoral fellow within the SYM centre**
University of Copenhagen: research and teaching duties.
Mentor: Ryszard Nest.
- 2017-2018 **ATER, full time (Temporary Research and Teaching Attaché)**

- Université Paris Diderot (Paris 7): research, scientific communication and teaching duties.
- 2014-2017 **Doctorant contractuel (teaching assistant)**
 Université Paris Diderot (Paris 7): research, scientific communication and teaching duties.
- Jan.-Jun. 2012 **Private tutoring (university level)**
 Academia Universitaria, Salamanca.
 Courses: differential geometry, harmonic analysis, linear algebra, mathematical analysis, numerical analysis.

Research Visits

- Apr. 2024 **Vrije Universiteit Brussel**
 Hosted and invited by Kenny De Commer.
- Jan.-Mar. 2023 **University of Copenhagen**
 Hosted and invited by Ryszard Nest.

Research Projects

- 2025– **Crossroads in the theory of compact quantum groups (CrocQG)**
 ANR-25-CE40-5010: [website](#)
- 2020-2022 **Connes' Conjectures with Quantum Groups (CONCOQUANT)**
 EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions.
 Grant agreement ID: 895141: [website](#)

Grants & Fellowships

- 2020 **Marie Skłodowska-Curie Individual Fellowships (H2020-MSCA-IF-2019)**
 Project: Connes' Conjectures with Quantum Groups ([CONCOQUANT](#)).
 University of Copenhagen (Denmark).
 Funding: European Commission (207 312€).
- 2011 **Collaboration grant (introduction to research in mathematics)**
 University of Salamanca (Spain).
 Project: Introduction to Riemann surfaces.
 Mentor: Pascual Cutillas Ripoll.
 Funding: Ministerio de Educación, Spanish government (3 000€).
- 2010 **General scholarship for the academic year**
 Ministerio de España, Spanish government.
- 2008 **Honors for the general certificate of education**
 Calisto y Melibea high school, Salamanca (Spain).

Publications & Preprints

 [ORCID](#)  [arXiv](#)  [Github](#)

11. **Baum-Connes conjecture via Balmer spectrum** (with I. Dell'Ambrogio)
In preparation. A version is available upon request.

10. **The strong Baum-Connes property for duals of compact groups** (with P. Fima)
In preparation. A version is available upon request.
9. **Causal inference of post-transcriptional regulation timelines from long-read sequencing in *Arabidopsis thaliana*** (with C. Ambroise and G. Rigall)
Submitted.
[arXiv](#)
8. **Stratification in equivariant Kasparov theory** (with I. Dell'Ambrogio)
Submitted.
[arXiv](#)
7. **A general Greenlees-May splitting principle** (with S. Bouc and I. Dell'Ambrogio)
To appear in Münster J. of Math. (MJM).
[arXiv](#)
6. **Projective representation theory for compact quantum groups and the quantum Baum-Connes assembly map** (with K. De Commer and R. Nest)
J. Noncommut. Geom. (JNCG): vol. 19, no. 3, 1015–1068 (2025).
[DOI](#) • [arXiv](#) • [HAL](#)
5. **Quantum direct products and the Künneth class**
Ann. Math. Blaise Pascal: vol. 31, no. 1, 11-45 (2024).
[DOI](#) • [arXiv](#) • [HAL](#)
4. **Permanence of the torsion-freeness property for divisible discrete quantum subgroups**
Mathematica Scandinavica (Math. Scand.): vol. 130, no. 2, 257-299 (2024).
[DOI](#) • [arXiv](#) • [HAL](#)
3. **Les maths des jeux quantiques**
Images des mathématiques (IdM): [Échos de la recherche](#) (2023).
2. **The Baum-Connes property for a quantum (semi-)direct product**
J. Noncommut. Geom. (JNCG): vol. 13, no. 4, 1295–1357 (2019).
[DOI](#) • [arXiv](#) • [HAL](#)
1. **Torsion and K -theory for some free wreath products** (with A. Freslon)
Int. Math. Res. Not. (IMRN): vol. 2020, no. 6, 1639-1670 (2018).
[DOI](#) • [arXiv](#) • [HAL](#)

Recent Talks

- Apr. 2025 **Catégorie de Kasparov équivariante et tt -géométrie**
Séminaire d'Algèbres d'Opérateurs, Institut de Mathématiques de Jussieu-Paris Rive Gauche - Université Paris Cité, Paris (France).
- Apr. 2024 **Categoría de Kasparov equivariante y tt -geometría**
Seminario, Departamento de Matemáticas Universidad de Salamanca, Salamanca (Spain).
- Mar. 2024 **Représentations projectives pour les groupes quantiques compacts**

Séminaire d'algèbre et de géométrie, Département de Mathématiques et Mécanique de l'Université de Caen, Caen (France).

Dec. 2023 **Représentations projectives des groupes quantiques compacts**
Séminaire, Laboratoire de Mathématiques de Reims, Reims (France).

Nov. 2023 **Equivariant Kasparov category and tt-geometry**
Category Seminar, Institut de recherche en mathématique et physique, Louvain-la-Neuve (Belgium).

Jan. 2023 **Projective representations for compact quantum groups**
SMUD seminars, Indian Statistical Institute, Delhi (India) - *online*.

Apr. 2022 **Projective representations for compact quantum groups**
South Atlantic Noncommutative Geometry Seminar, Universidad de Buenos Aires, Buenos Aires (Argentina) - *online*.

Apr. 2022 **Projective representations for compact quantum groups**
Operator Algebras Research Center, East China Normal University, Shanghai (China) - *online*.

Mentoring

Spring 2022 **Master thesis (University of Copenhagen)**
Sebastian Kaels Vigh
Topological Generation for Compact Quantum Groups

Teaching Experience

2021-2022 **University of Copenhagen**
· *Introduction to Representation Theory*
Master, 18h TA

2019-2020 **University of Copenhagen**
· *Introduction to Operator Algebras*
Master, 13h lecturer

2018-2019 **University of Copenhagen**
· *Topics in Operator Algebras*
Master-specialised course, 16h TA
· *Introduction to Operator Algebras*
Master, 20h lecturer

2017-2018 **ATER-full time-at Université Paris Diderot (Paris 7)**
· *Outils pour Biologistes 3*
L2 Biologie, 10h lecturer and 12h TA (+15h course management as course responsible)
· *Algèbre et Analyse élémentaires I*
L1 Physique, 54h TA
· *Algèbre et Analyse élémentaires II*
L1 MIASH, 72h TA
· *Classes Préparatoires Écoles d'Ingénieurs*
L1 Informatique, 36h TA

- 2016-2017 **Teaching Assistant at Université Paris Diderot (Paris 7)**
 · *Algèbre et Analyse élémentaires I*
 L1 Chimie, 54h
- 2015-2016 **Teaching Assistant at Université Paris Diderot (Paris 7)**
 · *Algèbre et Analyse élémentaires I*
 L1 Chimie, 54h
- 2014-2015 **Teaching Assistant at Université Paris Diderot (Paris 7)**
 · *Projet de mathématiques*
 L1 Maths, 34h
 · *Algèbre et Analyse pour la physique*
 L2 Physique, 54h

Event Organisation

- Nov. 2020– **Quantum Groups Seminar**
Online.
Weekly seminar: [website](#).
- Oct. 2024 **Higher structures in Noncommutative Geometry and Quantum Algebra**
Université de Lille (France).
Funding (18 000 €): CNRS, Fédération de recherche Mathématique des Hauts-de-France (FMHF), IRN representation theory, Labex CEMPI, Laboratoire Paul Painlevé, Réseau Thématique Topologie Algébrique et Géométrie (Rtop), Réseau Thématique Tétraèdre, Université de Lille.
Conference: [website](#)
- Aug. 2019 **Young Mathematicians in C^* -Algebras (YMCA)**
University of Copenhagen (Denmark).
Funding: Centre for Symmetry and Deformation.
Conference: [website](#).
- May 2019 **Subfactors and Quantum Groups: a combinatorial approach to some problems in Operator Algebras**
University of Copenhagen (Denmark).
Funding (DKK 70 000): Ph.D. school of the Faculty of Sciences.
Masterclass: [website](#).

Academic Service

Referee: **Journal of Operator Theory (JOT)**

Languages

English: proficient
French: fluent
Italian: proficient
Persian: conversational
Spanish: *mother tongue.*

Technical Skills

Publishing: **Quarto, LaTeX**

Programming: **C, C++, HTML, Python**