Rubén Martos

✉ **ruben.martosprieto@univ-evry.fr**   🔗 **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 Rigaill.
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. **Causal inference of post-transcriptional regulation timelines from long-read sequencing in Arabidopsis thaliana** (with C. Ambroise and G. Rigaill)

In preparation. A version is available upon request.

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

9. **The strong Baum-Connes property for duals of compact groups** (with P. Fima)
In preparation. A version is available upon request.

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 Institue, 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**
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 Géométrique (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**