

Curriculum Vitae

Rémi BOUTONNET
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351 cours de la Libération
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Personal informations

Born on June 19, 1987 in Millau, France.
Languages: French and English.

Education

2008 - 2012 Student at the École normale supérieure de Paris
2009 Graduate in mathematics
2010 Agrégation de mathématiques
2011 Master in mathematics, University of Paris VII
2011 - 2014 Ph.D. thesis “Several rigidity features for von Neumann algebras”. Advisor: Cyril Houdayer.

Positions

2014 - 2015 Postdoc at University of California, San Diego, with Adrian Ioana.
2016 - Chargé de Recherche, CNRS, Université de Bordeaux.

Research

Papers

- *On solid ergodicity for Gaussian actions.* J. Funct. Anal. **263** (2012), 1040–1063.
- *W^* -superrigidity of mixing Gaussian actions of rigid groups.* Adv. Math. **244** (2013), 69–90.
- *Amalgamated free product type III factors with at most one Cartan subalgebra (with C. Houdayer and S. Raum).* Compos. Math. **150** (2014), 143–174.
- *Maximal amenable subalgebras of von Neumann algebras associated with hyperbolic groups (with A. Carderi).* Math. Ann. **367** (2017), 1199–1216.
- *Maximal amenable von Neumann subalgebras arising from maximal amenable subgroups (with A. Carderi).* Geom. Funct. Anal. **25** (2015), 1688–1705.
- *Local spectral gap in simple Lie groups and applications (with A. Ioana and A. Salehi-Golsefid).* Invent. Math. **208** (2017), 715–802.
- *II_1 factors with non isomorphic ultrapowers (with I. Chifan and A. Ioana).* Duke Math. J. **166** (2017), 2023–2051.
- *Strong solidity of free Araki-Woods factors (with C. Houdayer and S. Vaes).* Amer. J. Math. **140** (2018), 1231–1252.
- *Structure of modular invariant subalgebras in free Araki-Woods factors (with C. Houdayer).* Anal. PDE **9** (2016), 1989–1998.
- *Crossed-products by locally compact groups: Intermediate subfactors (with A. Brothier).* J. Operator Theory **79** (2018), 101–137.
- *Amenable absorption in amalgamated free product von Neumann algebras (with C. Houdayer).* Kyoto J. Math. **58** (2018), 583–593.
- *A note on uniformly bounded cocycles into finite von Neumann algebras (with J. Roydor).* Canad. Math. Bull. **61** (2018), 236–239.
- *Local spectral gap in the group of Euclidean isometries (with A. Ioana).* Accepted to IMRN.

Preprints

- *Properly proximal groups and their von Neumann algebras (with A. Ioana and J. Peterson).* Preprint 2018.

Talks in conferences

- 04/2012 Workshop Connes'embedding conjecture, Neuchatel, Switzerland
- 09/2012 First meeting of the ANR project Neumann, ENS Lyon, France
- 01/2013 Workshop on operator algebras, Tokyo university, Japan
- 07/2013 Conference "Von Neumann Algebras and Measurable Group Theory", Leuven, Belgium
- 12/2013 Arbre de Noël du GDR géométrie non-commutative, Caen, France
- 06/2014 GDR Franco-Italien "Non-commutative Geometry and applications", Frascati (Roma), Italy
- 09/2014 Workshop "Von Neumann Algebras and Ergodic Theory", U.C. Los Angeles, USA
- 01/2015 AMS Special Session on Classification Problems in Operator Algebras, San Antonio, USA
- 05/2015 Atkin Memorial Lecture and Workshop "Expansion in Linear Groups", U.I. Chicago, USA
- 05/2015 Thirteenth annual meeting on noncommutative geometry and operator algebras, Vanderbilt University, USA
- 10/2015 East Coast Operator algebra symposium (ECOAS), University of Iowa, USA
- 12/2015 Arbre de Noël du GDR géométrie non-commutative, Montpellier, France
- 02/2016 Conference "Measured group theory", Erwin Schrödinger Institute, Vienna, Austria
- 04/2016 Workshop "Von Neumann Algebras", Mittag-Leffler Institute, Stockholm, Sweden
- 05/2016 Fourteenth annual meeting on noncommutative geometry and operator algebras, Bonn, Germany
- 08/2016 Workshop "C*-algebras", Oberwolfach, Germany
- 07/2017 Conference "Von Neumann Algebras and Measured Group Theory", IHP, Paris
- 09/2017 "Workshop on Operator Algebras, Geometry, and Actions", Banach Center, Warszawa, Poland
- 01/2018 Workshop "Classification of group von Neumann algebras", AIM, San Jose, USA
- 05/2018 Workshop "Approximation Properties in Operator Algebras and Ergodic Theory", IPAM, Los Angeles, USA
- 06/2018 Congrès national de la société mathématiques de France, Lille, France
- 08/2019 Workshop "C*-algebras", Oberwolfach, Germany
- 09/2019 "Classification Problems in von Neumann Algebras, BIRS, Canada
- 12/2019 Workshop "Groups, Dynamics and Approximations", Oberwolfach, Germany.

Talks in seminars

- 01/2012 Operator algebra seminar, K.U. Leuven, Belgium
- 02/2012 Groupe de Travail Dynamique mesurable, ENS Lyon
- 02/2012 Séminaire d'algèbres d'opérateurs, Paris 7
- 11/2012 Operator algebra seminar, K.U. Leuven, Belgium
- 01/2013 Groupe de travail Dynamique mesurable, with C. Houdayer, ENS Lyon
- 04/2014 Operator algebra seminar, K.U. Leuven, Belgium
- 11/2014 Subfactor seminar, Vanderbilt University, USA
- 11/2014 Functional Analysis colloquim, U.C. Los Angeles, USA
- 04/2015 Seminar "Groups, Actions and von Neumann algebras", IHP, Paris
- 04/2015 Operator theory seminar, University of Iowa, USA
- 05/2015 Functional Analysis colloquim, U.C. Los Angeles, USA
- 11/2015 Functional Analysis colloquim, U.C. Los Angeles, USA
- 01/2016 Séminaire de théorie ergodique et systèmes dynamiques, Paris 13
- 03/2016 Séminaire GAN, Orsay
- 03/2016 Geometry, Topology and Dynamics seminar, Orsay
- 04/2016 Analysis seminar, University of Glasgow, Scotland
- 04/2016 Séminaire d'analyse fonctionnelle, Lille
- 06/2016 Trimester Seminar on von Neumann algebra, HIM, Bonn, Germany
- 09/2016 Séminaire d'algèbres d'opérateurs, Paris 7
- 09/2016 Séminaire de géométrie, Bordeaux
- 11/2016 Séminaire d'analyse harmonique non-commutative, Caen
- 01/2017 Seminar on operator algebras, U.C. San Diego, USA
- 01/2018 Operator algebra seminar, Münster, Germany
- 02/2018 Operator algebra seminar, Leuven, Belgium
- 03/2018 Operator algebra seminar, Copenhagen, Denmark
- 10/2018 Séminaire GAN, Orsay