

Constanza Rojas-Molina

Born on April 7th, 1983 in La Serena, Chile.

Married, no children.

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Education

- Sept 2008–Aug 2012 **Ph.D. in Mathematics**, *Laboratoire AGM, Université de Cergy-Pontoise, France.*
Thesis: The mathematical study of electronic transport in random Schrödinger operators with quasicrystalline structures.
Thesis defense: June 25 2012.
Advisor: Prof. François Germinet.
Members of the Jury: L. Bruneau (U. de Cergy-Pontoise), P. Hislop (U. of Kentucky) A. Joye (U. de Grenoble 1), A. Klein (U.C. Irvine), F. Klopp (U. Paris 6), P. Müller (LMU Munich).
- 2007–2008 **Master in Fundamental Mathematics (Master 2 Recherche)**, *mention “très bien”, Université Pierre et Marie Curie-Paris 6, France.*
- 2005–2007 **Studies in the M.Sc. in Mathematics Program**, *Universidad de La Serena, Chile.*
- 2001–2005 **B. Sc. in Mathematics**, *obtained with honours, Universidad de La Serena, Chile.*

Experience

- Oct 2013–to date **Postdoctoral Researcher- Marie Curie Fellow**, *under the supervision of Prof. Peter Müller, Mathematisches Institut, LMU Munich, Germany.*
Project: A Mathematical Study of Electronic Transport in Aperiodic Media (ETAM).
- Jan–Sept 2013 **Visiting Researcher**, *Center for Applied Mathematics and Theoretical Physics (CAMTP), University of Maribor, Slovenia.*
- Sept–Dec 2012 **Postdoctoral Researcher**, *Mittag-Leffler Institute, Sweden.*
- Sept 2008–July 2012 **PhD Student-Teaching Assistant (Moniteur)**, *Mathematics Department-Laboratoire AGM, Université de Cergy-Pontoise, France.*

Publications

- ★ F. Germinet, P. Müller, C. Rojas-Molina, *Dynamical localization for Delone-Anderson operators*, in preparation. Extended abstract in the report of the Oberwolfach Workshop "Correlations and interactions for random quantum systems" Oct. 2011, Report No. 50/2011 DOI: 10.4171/OWR/2011/50.
- C. Rojas-Molina, *The Anderson model with missing sites*, to appear in the Proceedings of the workshop "Spectral Theory and Differential Operators", TU Graz (Austria), 2012 (Eds: J. Behrndt, G. Teschl, et H. Woracek) in Operators and Matrices.
- C. Rojas-Molina, I. Veselić, *Scale-free unique continuation estimates and applications to random Schrödinger operators*, Commun. Math. Physics 320 (1) 245-274 (2013).
- C. Rojas-Molina, *Characterization of the Anderson metal-insulator transport transition for non ergodic operators and application*, Ann. Henri Poincaré 13 (7) 1575-1611 (2012).
- F. Germinet, C. Rojas-Molina, *Dynamical mobility edge for various random Landau Hamiltonians*, RIMS Kokyuroku Bessatsu, Proceedings of the Conference "Spectra of Random Operators and Related Topics", B27, 25-34 (2011).
- M. Corgini, C. Rojas-Molina, D.P. Sankovich, *Coexistence of Non-Conventional Condensates in Two-Level Bose Atom System*, International Journal of Modern Physics B, Vol 22, (27): 4799-4815 (2008).

Teaching

- 2008–2011 **Teaching Assistant for undergraduates**, *Mathematics Department, Université de Cergy-Pontoise*.
Calculus, Variational Methods, C2I (Certification Informatique et Internet)
- 2005–2007 **Teaching Assistant for undergraduates**, *Mathematics Department, Universidad de La Serena, Chile*.
Calculus, Algebra, Functional Analysis, Analysis of Complex Variable

Visits

- Jan-June 2015 **Visiting Fellowship**, *Newton Institute for Mathematical Sciences*, Program Periodic and Ergodic Spectral Problems.
- April/June 2013 **Research visit**, *Institut Henri Poincaré, France*, Trimestre thématique "Variational and spectral methods in quantum mechanics".
- Sept. 3 -Dec. 15 2012 **Research visit**, *Mittag-Leffler Institute, Sweden*.
- July 10–24 / Nov 21-Dec. 8 2011 **Research visit**, *TU Chemnitz, Germany (Prof. I. Veselić)*.
- May 22 -May 25 2011 **Research visit**, *Friedrich-Schiller Universität Jena, Germany (Prof. D. Lenz)*.
- April 1-June 30 2011 **Erasmus Ph.D. student**, *Ludwig-Maximilians-Universität, Munich, Germany*.
Under the direction of Prof. Peter Müller.
- May 15- June 15 2010 **Ph.D. Student visitor**, *Centre Interfacultaire Bernoulli, EPFL-Lausanne, Switzerland*.

Awards and Grants

- Jan-June 2015 **Visiting Fellowship**, *Newton Institute for Mathematical Sciences*, Program Periodic and Ergodic Spectral Problems.
- Oct 2013-Sept 2015 **Marie Curie Intra-european Fellowship (IEF) for Career Development**, *Seventh Framework Programme (FP7) of the European Commission*, Postdoctoral stay at LMU Munich.
- 2013 **Humboldt Research Fellowship for Postdoctoral Researchers**, (*declined in favor of Marie Curie IEF*).
- Sept 3-Dec 15 2012 **Postdoctoral grant - Mittag Leffler Institute**, *Participation in the program "Hamiltonians in magnetic fields"*.
- April-June 2011 **Erasmus mobility fellowship for PhD students**, *Université de Cergy-Pontoise*.
- 2008- 2012 **PhD Student Member of ANR BLAN 0261 (French National Research Agency)**, *Coordinators: F. Klopp and F. Germinet*.
- 2008-2012 **Grant CONICYT for Doctoral Studies**, *Beca de Gestion Propia para Doctorado en el Extranjero, Comisión Nacional de Investigación Científica y Tecnológica, Chile*.
- 2006 **Awards "Universidad de La Serena" and "Facultad de Ciencias"**, *Universidad de La Serena, Chile*.
For graduating with honours.

Talks

- June 2014 **London Analysis and Probability Seminar**, *King's College, London, UK*.
- December 2013 **Analysis Seminar**, *Université de Nantes, France*.
- November 2013 **Analysis Seminar**, *Université de Bordeaux, France*.
- April 2013 **Young Researchers Seminar**, *Program VSMQM, Institut Henri Poincaré, France*.
- January 2013 **Thematic School GDR CHANT**, *Grenoble, France*.
- October 2012 **Institute Mittag-Leffler Seminar**, *Stockholm, Sweden*.
- August 2012 **Conference on Spectral Theory**, *TU Graz, Austria*.
- June 2012 **PhD Students Seminar**, *Université de Cergy-Pontoise, France*.
- February 2012 **Annual Research Group Meeting-GDR Dynamique Quantique**, *Université de Toulouse, France*.
- January 2012 **Mathematical-Physics Seminar**, *University of Ljubljana, Slovenia*.

- January 2012 **Department Seminar**, *CAMTP and Department of Mathematics, University of Maribor, Slovenia.*
- October 2011 **MFO Workshop on Correlations and Interactions for Random Quantum Systems**, *M. F. Oberwolfach, Germany.*
- October 2011 **Spectral Problems Seminar**, *Université de Paris 11 Orsay, France.*
- July 2011 **Graduate Students Symposium-Summer School on Graphs and Spectra**, *TU Chemnitz, Germany.*
- July 2011 **Ph.D. Students Workgroup (GdTT)**, *Laboratoire CERMICS- École de Ponts Paris Tech, France.*
- June 2011 **Analysis Seminar**, *Ludwig-Maximilians-Universität, Munich, Germany.*
- May 2011 **Analysis Seminar**, *Friedrich-Schiller Universität Jena, Germany.*
- April/July 2011 **Analysis, Stochastics and Mathematical Physics Seminar**, *TU Chemnitz, Germany.*
- March 2011 **Ph.D. Students Workgroup (GdTT)**, *Laboratoire JLL-Paris 6, France.*
- September 2010 **Conference Spectral Days**, *Pontificia Universidad Católica de Chile, Santiago, Chile.*
- June 2010 **Journée Thématique "Electronic Transport in Disordered Media"**, *Laboratoire AGM, Université de Cergy-Pontoise.*
- June 2010 **Conference on Random Schrödinger Operators**, *Centre Interfacultaire Bernoulli, EPFL-Lausanne, Switzerland.*
Part of the Program "Spectral and Dynamical Properties of Quantum Hamiltonians"
- February 2010 **Workgroup on Mathematical-Physics and Semi-classical Analysis**, *Laboratoire LAGA, Université Paris 13, France.*
- November 2009 **Students Satellite Meeting, Kochi School on Random Schrodinger Operator**, *Kochi University, Japan.*

Attendance to Schools and Colloquiums

- June 2014 **Summer School Quantum Spin Systems**, *University of Alabama at Birmingham, USA.*
- November 2011 **Colloquium GDR CHANT**, *Institut Joseph Fourier, Grenoble, France, "Interactions EDPs/Probas : modèles probabilistes pour la simulation moléculaire".*
- August 2011 **Summer School in Mathematical Physics**, *Erwin Schrödinger Institute, Austria.*
- July 2011 **Summer School on Graphs and Spectra**, *TU Chemnitz, Germany.*
- November 2010 **10ème Forum des Jeunes Mathématiciennes**, *CIRM-Marseille, Association Femmes and Mathématiques et CNRS, France.*
- July 2008 **Anderson Localization Transition: Introductory Training Course**, *Isaac Newton Institute, Cambridge, UK.*
- January 2004 **Summer School in Mathematical Physics**, *Universidad de La Serena, Chile.*

Others

Member of IAMP (International Association of Mathematical Physics).

Mathscinet Reviewer.

Co-organizer of the Meeting "Electrons quantum disordered media", March 12, 2014, Laboratoire AGM, Université de Cergy-Pontoise, France.

Languages

Spanish **Native**

English **Fluent**

French **Fluent**

Greek **Beginner**

Language courses at Maison de la Grèce (2010) and ENS (2009) Paris, France

German **Beginner+**