

Dr Elisabetta Candellero PhD

Research Fellow

[School of Mathematics \(/schools/mathematics/index.aspx\)](/schools/mathematics/index.aspx)

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About

Elisabetta Candellero is a Research Fellow (post-doctoral).

She finished her PhD under the supervision of Prof. Wolfgang Woess at “Graz University of Technology” (Austria).

The title of her PhD thesis was “Limit Behaviors for Random Walks and Branching Random Walks on some Products of Groups”.

Currently she has two publications in scientific journals.

She gave several talks, during international conferences and workshops, about her research.

Her fields of interest are mainly Probability Theory, Potential Theory, Graph Theory, Ergodic Theory and Dynamical Systems.

So far she has been working mainly on discrete stochastic processes (Markov chains) on groups.

Qualifications

- PhD in Technical Mathematics (with distinction), Graz University of Technology (Austria) 2012
- Master Degree in Mathematics (with honors and distinction), University of Turin (Italy) 2008
- Bachelor Degree in Mathematics (with honors), University of Turin (Italy) 2006

Biography

Elisabetta Candellero studied at the University of Turin and got her bachelor degree in Mathematics in 2006 (110/110 with honors). The title of her thesis was “Properties of the solutions of reaction-diffusion systems”, and it was written under the supervision of Prof. P. Cermelli.

In 2007, she went to Graz (Austria) as Erasmus student. There, she took some exams and wrote her master thesis under the supervision of Prof. W. Woess (Graz University of Technology) and Prof. L. Sacerdote (University of Turin). The title of her thesis was “Branching random walks on homogenous trees”, and she graduated in Mathematics at the University of Turin in 2008 (110/110 with honors and distinction).

From November 2008 until March 2009 she was employed at the Graz University of Technology (Graz, Austria) as a researcher (“Forschungsstipendiatin”). Afterwards, she started her PhD under the supervision of Prof. W. Woess.

She got her PhD in Technical Mathematics in July 2012 (with distinction), defending the thesis with title “Limit behaviors for random walks and branching random walks on some products of groups”.

Currently she is employed at the University of Birmingham as a Research Fellow.

Research

Research Themes

Markov chains, ergodic theory, probability theory, graph theory, potential theory and dynamical systems.

Research Activity

Random graphs, hyperbolic spaces, random walks, branching random walks, internal aggregation models.

Publications

- E. Candellero, L. Gilch (2012) Phase transition for random walk asymptotics on free products of groups, *Random Structures and Algorithms*, Vol. 40, Issue 2, pp. 150 – 181.
- E. Candellero, L. Gilch, S. Mueller (2012+) Branching random walks on free products of groups, *Proceedings of the London Mathematical Society* (to appear).

