

Resume

Anna Ben-Hamou

Date of birth : April 12, 1988

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PhD Student at Université Paris Diderot, under the supervision of Stéphane Boucheron and Justin Salez.

EDUCATION

- **Fall 2015** : Internship at Microsoft Research, mentored by Yuval Peres.
- **2013 - -** : PhD in Probability and Statistics at Université Paris Diderot, LPMA, under the supervision of Stéphane Boucheron and Justin Salez. Research: mixing times of random walks on graphs, urn models, concentration inequalities, rare probabilities estimation.
- **2012-2013** : Master Degree in Probability and Statistics, at Université Paris Diderot. Master Dissertation *The missing mass of independent samples and of random walks' trajectories*, under the supervision of Stéphane Boucheron.
- **2011-2012** : Master Degree in Economics, at Paris School of Economics and ENS Ulm. Exchange Program in Berkeley University, California. Master Dissertation on Monetary Policy, under the direction of Barry Eichengreen (UC Berkeley) and Pierre-Cyrille Hautcoeur (Paris School of Economics).
- **2010-2011** : First year of the Master Program *Economic Analysis and Policy* (APE), Paris School of Economics and ENS Ulm. Bachelor Degree in Mathematics, Université Pierre et Marie Curie.
- **2009-2010** : Bachelor Degree in *Economics*, Sorbonne and ENS Ulm.
- **2009-2013** : Student at Ecole Normale Supérieure of Paris (ENS Ulm).
- **2006–2009** : Preparatory Class *Khâgne B/L* in Lycée Henri-IV.
- **2006** : Highschool Diploma, *Scientific section*.

PUBLICATIONS AND PREPRINTS

- Anna Ben-Hamou, Stéphane Boucheron, Elisabeth Gassiat, *Pattern coding meets censoring: (almost) adaptive coding on countable alphabets*, *arXiv:1608.08367*, submitted.
- Anna Ben-Hamou, Yuval Peres, Justin Salez, *Weighted sampling without replacement*, *arXiv:1603.06556*, submitted.
- Anna Ben-Hamou, Justin Salez, *Cutoff for non-backtracking random walks on sparse random graphs*, *arXiv:1504.02429*, accepted to the Annals of Probability.
- Anna Ben-Hamou, Stéphane Boucheron, Mesrob Ohannessian, *Concentration inequalities in the infinite urn scheme for occupancy counts and the missing mass*, *arXiv:1412.8652*, accepted to the Bernoulli Journal.

TEACHING

- **2015-2016** : Tutoring for statistical programming projects (Master level, first year).
- **2015-2016** : Inferential Statistics (Bachelor level, third year).

- **2013-2015** : Probability and Statistics (Bachelor level, second year).
- **2013-2015** : Oral examinations in Analysis and Algebra (Bachelor level, second year).

ORGANIZATION

- **2014-2015** : Organizer of the *LPMA Phd Students' Workshop*, <http://www.proba.jussieu.fr/~gtt/>.

TALKS

- Journées MAS, Grenoble, August 29-31, 2016. *Weighted sampling without replacement*.
- Combinatorics Seminar of Paris Diderot (IRIF), May 12th, 2016. *Mixing times of random walks on random graphs with given degrees*.
- Probability Seminar of Orsay University (Paris-Sud), April 4th, 2016. *Mixing times of random walks on random graphs with given degrees*.
- Probability Seminar of University of Washington, Seattle, United States, October 19th, 2015. *Cutoff for non-backtracking random walks on sparse random graphs*.
- Probability Seminar of UBC, Vancouver, Canada, October 14th, 2015. *Cutoff for non-backtracking random walks on sparse random graphs*.
- Young Mathematicians Forum, Henri Poincaré Institute, Paris, October 17-18, 2014. *The missing mass, concentration and regular variation*.
- Statistics Seminar of Paul Sabatier University, Toulouse, France, May 20th, 2014. *Concentration Inequalities in the Bins and Balls setting*.
- Analysis of Algorithms 2014, Paris. Poster *Estimating the missing mass*.

CONFERENCES AND SCHOOLS

- Workshop *Probability, Combinatorics and Geometry*, McGill University's Bellairs Institute, Barbados, April 1-8, 2016.
- Conference *Spectra of random graphs*, CIRM, Luminy, France, January 4-8, 2016.
- Summer school *Mostly Markov Mixing*, Technion, Haifa, Israel, August 30-September 4, 2015.
- Workshop *Probability, Combinatorics and Geometry*, McGill University's Bellairs Institute, Barbados, April 3-10, 2015.
- Oberwolfach Workshop *Probability, Trees, and Algorithms*, Germany, November 2-8, 2014.
- Budapest Summer School *Graph Limits, Groups and Stochastic Processes*, MTA Renyi Institute, Hungary, June 22-27, 2014.

EXPERIENCES

- **2013-2015** : Mathematic Tutoring in highschool with the Association Animath.
- **2012-2014** : Oral interrogations of Mathematics in Scientific Preparatory Classes of Lycée Saint-Louis, Paris.
- **2009-2011** : Oral interrogations of Economics in Economics Preparatory Classes of Lycée Henri-IV, Paris.