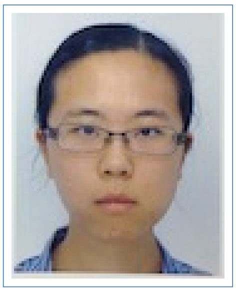

XINXIN CHEN

Curriculum Vitae

Personal information

FAMILY NAME	CHEN
First name	Xinxin
Sex	Female
Date of birth	21 September, 1988
Nationality	China (PRC)
Professional address	Bureau 244, Bâtiment Braconnier, Boulevard du 11 novembre 1918, 69622 Villeurbanne Cedex.

Academic position

2014– **Maîtresse de Conférence**, *Institut Camille Jordan, Université Claude Bernard Lyon 1*, France.

Education

2010–2014 **Université Paris VI Pierre et Marie Curie, Laboratoire de Probabilités et Modèles Aléatoires**, *PhD. Branching random walks with selection*, Supervisor: Zhan SHI, Jury: J. Biggins, B. Chauvin, A. Rouault, J. Berestycki and Z.-Y. Wen.

2009–2010 **Université Paris VI Pierre et Marie Curie**, *Master 2*, Probabilités et Modèles aléatoires.

2005–2009 **Department of Mathematics, Tsinghua University**, *Bachelor*, Pure and Applied mathematics.

Research Interests

- Probability theory and random models with physical or biological background:
  - Branching Brownian motion, Gaussian free field and related models;
  - Random walks in random environment, random walks on trees/graphs;
  - Infinite particle systems

Articles

- **Publications:**
  1. Chen, X. *Convergence rate of the limit theorem of a Galton-Watson tree with neutral mutations.* **Statistics and Probability Letters** 83, pp. 588-595. (2013)
  2. Chen, X. *Waiting times for particles in a branching Brownian motion to reach the rightmost position.* **Stochastic Processes and their Applications** 123(8), pp. 3153-3182. (2013)
  3. Chen, X. *Scaling limit of the path leading to the leftmost particle in a branching random walk.* **Theory of Probability and its Applications** 59(4), pp. 567-589. (2015)
  4. Chen, X. *A necessary and sufficient condition for the non-trivial limit of the derivative martingale in a branching random walk.* **Advances of Applied Probability** 47(3), pp. 741-760. (2015)
  5. Chen, X. and Miermont, G. *Long Brownian bridges in hyperbolic spaces converge to Brownian trees.* **Electronic Journal of Probability** 22(58), 15 pp. (2017)
  6. Chen, X. and Zeng, X. *Speed of Vertex reinforced jump process on Galton-Watson trees.* **Journal of Theoretical Probability** 31(2), pp. 1166-1211. (2018)
  7. Andreoletti, P. and Chen, X. *Range and critical generations of a random walk on Galton-Watson trees.* **Annales de l'Institut Henri Poincaré. Probab. Statist.** 54(1), pp. 466-513. (2018)
  8. Chen, X. and Madaule, T. and Mallein, B. *On the trajectory of an individual chosen according to supercritical Gibbs measure in the branching random walk.* **Stochastic Processes and their Applications** 129(10), pp. 3821-3858. (2019)
  9. Chen, X. and Guillotin-Plantard, N. *Branching processes in correlated random environment.* **Electronic Communication of Probability** 24(7), 13 pp. (2019)
  10. Chen, X. and He, H. *On large deviation probabilities for empirical distribution of supercritical branching random walks with unbounded displacements* **Probability Theory and Related Fields** 175(1-2), pp. 255-307. (2019)
  11. Chen, X. and He, H. *Lower deviation and moderate deviation probabilities for maximum of a branching random walk.* **Annales de l'Institut Henri Poincaré. Probab. Statist.** (To appear)
- **Preprints:**
  - Chen, X. and He, H. and Mallein, B. *Branching Brownian motion conditioned on small maximum.* Available at arXiv:2007.00405
  - Chen, X. and Ma, C. *On the tail distribution of the solution to some distribution equation.* Availabe at arXiv:1903.10755
- **In preparation:**
  - Andreoletti, P. and Chen, X. *Local times of randomly biased random walk on Galton-Watson tree in the slow movement regime.*
  - Chen, X. *Heavy range of randomly biased random walk on Galton-Watson tree in the slow movement regime.*
  - Chen, X. and Hartung, L. and He, H. *Large deviation for maximum of two-speed branching Brownian motion.*
  - Chen, X. and Garban, C. and Shekhar, A. *A new proof of Liggett's characterisation of invariant measures for independent particle systems.*
  - Chen, X. and de Raphélis, L. *Most visited edges of randomly biased random walk on supercritical Galton-Watson tree. (I)&(II)*

Awards

ICCM 2016 New World Mathematics Awards: Silver Medal of Doctor thesis

ICCM 2013 New World Mathematics Awards: Silver Medal of Master thesis

Academic service

- Referees of journals AIHP, SPA, Bernoulli, Extremes, EJP, ECP etc.
- Member of selection committee of Maître de Conférence on Applied Mathematics at Institut Denis Poisson, Université d'Orléans.
- Organisation of Probability seminar at Institut Camille Jordan, Université Claude Bernard Lyon 1.

Teaching experience

- 2014–2016: Algebra I (TA), Measure and Integration (TA), Complex analysis (TA), Stochastic processes and statistics (TA);
- 2016–2018: Markov chain (Lecture+TA); Probability (TA), Algebra III (TA);
- 2018–2020: Markov chain (Lecture+TA); Statistics (TA), Fundamentals of mathematics II (TA); Master's thesis (Director)

Research Fundings

2015 BQR

2017–2020 ANR/FNS MALIN (participating member)

Talks and presentations

08/2012 St-Flour summer school. Talk entitled "Waiting times for particles in a branching Brownian motion to reach the rightmost position".

02/2013 Probability and Statistics seminar in Versailles, Laboratoire de Mathématiques de Versailles, Université de Versailles St Quentin en Yvelines. Talk entitled "Temps d'attente des particules dans un BBM pour atteindre la maximale position".

06/2013 Workshop on "Random walks, random environment and reinforcement". Talk entitled "Accessibility percolation on N-ary trees".

01/2014 Probability seminar on Friday, LPMA, Université Paris VI. Talk entitled "Derivative martingale in the branching random walk".

08/2014 ICM2014, short communications. Talk entitled "A necessary and sufficient condition for the non-trivial limit of the derivative martingale in a branching random walk".

04/2015 Seminar of Orléans, MAPMO, Université d'Orléans. Talk entitled "Fixed points of a random smoothing transform: solutions from branching random walks".

08/2015 Seminar of Department of Mathematics, University of Chongqing. Talk entitled "Fixed points of of a random smoothing transform: solutions from branching random walks"

- 09/2015 Seminar of Vannes, Laboratoire de Mathématiques de Bretagne Atlantique, Université de Bretagne Sud. Talk entitled "Favourite generations and range of a randomly biased random walk on Galton-Watson tree".
- 06/2016 Seminar of Department of Mathematics, Beijing Normal University. Talk entitled "Randomly biased random walks on Galton-Watson tree".
- 05/2017 Workshop on Branching Processes and Related Topics. Talk entitled "Large deviation of empirical distribution of branching random walk in Schröder case"/
- 04/2017 Conference in celebration of the 90th anniversary of Mathematics Department of Tsinghua University. Talk entitled "Long Brownian bridges in hyperbolic spaces converge to Brownian trees".
- 06/2017 Seminar of Department of Mathematics, The Chinese University of HongKong. Talk entitled "Long Brownian bridges in hyperbolic spaces converge to Brownian trees".
- 11/2017 Probability, Statistics, Optimisation and control seminar, Institut de mathématiques de Bourgogne, Université de Bourgogne. Talk entitled "Long Brownian bridges in hyperbolic spaces converge to Brownian trees".
- 12/2017 Probability seminar, Institut de recherche mathématique de Rennes, Université de Rennes. Talk entitled "Long Brownian bridges in hyperbolic spaces converge to Brownian trees".
- 05/2018 The 5th Bath-Beijing-Paris meeting on branching structures. Talk entitled "A distribution equation and its application on tail behaviours of some multi-type Galton-Watson tree".
- 05/2019 Probability and Statistics seminar, Laboratoire J. A. Dieudonné, Université Côte D'azur Nice. Talk entitled "Edge local times of randomly biased random walks on trees in the diffusive/sub-diffusive case".
- 06/2019 The 2nd meeting of ANR/SNSF MALIN. Talk entitled "Edge local times of randomly biased random walk on trees".
- 11/2019 Probability and Statistics seminar, Department of mathematics of Orsay, Université Paris-Sud. Talk entitled "Lower and moderate deviation for maximums of branching random walk and branching Brownian motion ".
- 12/2019 Probability and Statistics seminar in Versailles, LMV, Université de Versailles St Quentin en Yvelines. "Branching random walk and branching Brownian motion on small maximum".

Visits

- 19/04/2015–25/04/2015 Visit Prof. Pierre Andreoletti at Laboratory MAPMO, Université d'Orléans, France
- 13/07/2015–28/08/2015 Visit Yau Mathematical Sciences Center at Beijing, Tsinghua University
- 05/07/2016–08/27/2016 Visit Yau Mathematical Sciences Center at Beijing, Tsinghua University

15/06/2017– 30/06/2017 Visit Prof. Yingying Wei at Department of Statistics of the Chinese University of Hong Kong

02/07/2017– 09/07/2017 Mini course "Branching processes and associated martingales" in summer school on stochastic processes at Department of Mathematics, Beijing Normal University

09/07/2017– 19/08/2017 Visit Yau Mathematical Sciences Center at Beijing, Tsinghua University

29/06/2018– 20/08/2018 Visit Department of Mathematics, Beijing Normal University; Visit Yau Mathematical Sciences Center at Beijing, Tsinghua University

22/12/2018– 05/01/2019 Visit Prof. Hui He at Department of Mathematics, Beijing Normal University

16/04/2019– 19/04/2019 Visit Prof. Pierre Andreoletti at Institut Denis Poisson, Université d'Orléans

13/05/2019– 16/05/2019 Visit Prof. Pierre Andreoletti at Institut Denis Poisson, Université d'Orléans

27/10/2019– 31/10/2019 Visit Prof. Romain Abraham at Institut Denis Poisson, Université d'Orléans

13/12/2019– 05/01/2019 Visit Prof. Zenghu Li and Prof. Hui He at Department of Mathematics, Beijing Normal University

Languages

Chinese **Native language**

English **Fluent**

French **Fluent**