Curriculum Vitae

Name: Xiequan FAN
Current status: Associate Professor
Personal data:
Born on Dec. 23th 1982 in China
Present Address:
Center for Applied Mathematics
Tianjin University
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Languages: Chinese, English, French.

Education

- 09/2002 - 07/2006 Student at Faculty of Mathematics and Computer Science, Hubei University, Wuhan, China.
- 09/2006 - 07/2009 Graduate Student at School of Mathematical Sciences, Beijing Normal University, Beijing, China.
- 09/2009 - 08/2013 PhD student at LMBA, UMR CNRS 6205, Université de Bretagne-Sud, Vannes, France. (Project funded by the China Scholarship Council from 09/2009 to 08/2013.)

Positions

- 10/2013 - 09/2015 Post-Doc at Regularity team, INRIA and Ecole Centrale Paris, France.
- 10/2015 - Now Associate professor at Tianjin University, Tianjin, China.

List of publications

1. Fan, X.*, Grama, I. and Liu, Q., 2012. Hoeffding's inequality for supermartingales, Stochastic Process. Appl. 122, 3545–3559.
2. Fan, X.*, Grama, I. and Liu, Q., 2012. Large deviation exponential inequalities for supermartingales, Electron. Commun. Probab. 17, no. 59, 1–8.
3. Fan, X.*, Grama, I. and Liu, Q., 2013. Cramér large deviation expansions for martingales under Bernstein's condition, Stochastic Process. Appl. 123, 3919–3942.

4. Fan, X.*, Grama, I. and Liu, Q., 2013. Sharp large deviations under Bernstein's condition, C. R. Acad. Sci. Paris, Ser. I. 351, 845–848.

5. Chazottes, J.R., Cuny, C., Dedecker, J.*, Fan, X. and Lemler, S., 2014. Limit theorems and inequalities via martingale methods, ESAIM: Proceedings.44,177–196.

6. Fan, X.*, Grama, I. and Liu, Q., 2014. A generalization of Cramér large deviations for martingales, C. R. Acad. Sci. Paris, Ser. I. 352, 853–858.

7. Dedecker, J. * and Fan, X., 2015. Deviation inequalities for separately Lipschitz functionals of iterated random functions, Stochastic Process. Appl. 125, 60–90.

8. Fan, X.*, Grama, I. and Liu, Q., 2015. Exponential inequalities for martingales with applications. Electron. J. Probab. 20, no. 1, 1–22.

9. Fan, X.*, Grama, I. and Liu, Q., 2015. Sharp large deviation results for sums of independent random variables. Sci. China Math. 58, 1939–1958.

10. Fan, X.*, Grama, I. and Liu, Q.*, 2017. Non-uniform Berry-Esseen bounds for martingales with applications to statistical estimation. Statistics 51(1): 105–122.

11. Fan, X.*, Grama, I. and Liu, Q., 2017. Deviation inequalities for martingales with applications. J. Math. Anal. Appl. 448(1): 538–566.

12. Fan X. 2017. Self-normalized deviation inequalities with application to t-statistic. Statistics Probab. Letters 127: 158–164.

13. Fan, X.*, Grama, I. and Liu, Q., 2017. Martingale inequalities of type Dzhaparidze and van Zanten. Statistics. 51(6), 1200–1213.

14. Fan, X., 2017. Sharp large deviation results for sums of bounded from above random variables. Sci. China Math. 60(12), 2465–2480.

15. Fan, X.*, Shao, Q.M. 2018. Berry-Esseen bounds for self-normalized martingales. Comm. Math. Statist. 6(1): 13–27.

16. Fan, X.*, Shao, Q.M. 2018. Tempered Fractional Multistable Motion and Tempered Multifractional Stable Motion. ESAIM-Probab. Stat. to appear.

17. Fan, X. 2019. Exact rates of convergence in some martingale central limit theorems. J. Math. Anal. Appl. 469(2). 1028–1044.

18. Fan, X.*, Grama, I., Liu, Q., Shao, Q.M. 2019. Self-normalized Cramer type moderate deviations for martingales. Bernoulli. to appear.

19. Fan, X.*, Wang, S. 2019. Bernstein type inequalities for self-normalized martingales with applications. Statistics. to appear.

Foudation Grants

1. Berry-Esseen bounds for martingales, Peiyang Scholar Foundation of Tianjin University, 2018/01-2019/12, 100 000 Yuan, Holder.
2. Cramér type large deviation expansions for martingales and their applications, National Nature Science Foundation of China, 2017/01-2019/12, 180 000 Yuan, Holder.
3. Limit theorems for real valued branching random walks with random environments in time, National Nature Science Foundation of China, 2016/01-2018/12, 180 000 Yuan, Collaborator.

Conferences and invited talks

1. Roscoff, France, 18 - 22 Jun., 2012. Journées de probabilités 2012. Participation.
2. Clermont-Ferrand, France, 28 - 31 Aug., 2012.Journées MAS 2012, concentration et applications. Invited talk of 20 min.: *Inégalités de Hoeffding et Freedman pour les surmartingales.*
3. Lorient, France, 13 Sept., 2012. Journée ED SICMA. Poster: Inégalités de Hoeffding et Freedman pour les surmartingales.
4. Lorient, France, 3 - 7 Dec., 2012. Doctoriales Bretagne. Poster: Les probabilités et ses applications.
5. Vannes, France, 13 Jun., 2013. Séminaire de LMBA. Talk of 45 min.: *Sharp Large deviations for sums of independent random variables.*
6. Orléans, France, 17 - 21 Juin, 2013.Journées de probabilités 2013. Participation.
7. Rennes, France, 24-25 Jan., 2013. Journées Louis Antoine 8. Participation.
8. Vannes, France, 13 Jun., 2013. Séminaire de LMBA. Talk of 45 min.: *Sharp Large deviations for sums of independent random variables.*
9. Quimper, France, 5 Juill., 2013. Journée Systèmes dynamiques, Probabilités et Statistique. Participation.
10. Vannes, France, 19 Mar., 2014. Séminaire de LMBA. Talk of 45 min.: *Multistable Lvy motions and their continuous approximations.*

11. Antony, Paris, 20 Mar., 2014. Evaluation Seminar. Talk of 30 min.: *Multistable Lévy motions and their continuous approximations.*

12. INRIA Saclay, Paris, 12-14 May, 2014. Conference in honour of Kenneth Falconer's 60th birthday. Talk of 45 min.: *Multistable Lévy motions and their continuous approximations.*

13. Cargèse, France, 26-31 May, 2014. High Dimensional Probability VII. Participation.

14. KL Leuvin, Belgium, 1 July, 2015. Workshop on Graphs, Probability and Statistical learning. Invited Talk of 45 min.: *Talagrand's inequality and large deviation expansions for sums of independent random variables.*

15. Beijing, China, 13-17 June, 2016. The 8th International Conference on Stochastic Analysis and its Applications. Participation.

16. Nanning, China, 28 Jun - 2 July, 2017. IMS-China International Conference on Statistics and Probability. Invited talk of 30 min.: *Self-normalized Cramer type moderate deviations for martingales.*

17. Changchun,China, 23-27 September, 2017. 2nd Sino-Russian Seminar on Asymptotic Methods in Probability Theory and Mathematical Statistics. Talk of 30 min.: *Self-normalized Cramer type moderate deviations for martingales.*

18. Singapore, 26-29 July, 2018. The 5th Institute of Mathematical Statistics Asia Pacific Rim Meeting. Invited talk of 30 min.: *Self-normalized Cramer type moderate deviations for martingales.*

19. Taipei, China, 4-10 August, 2018. The 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications. Invited talk of 30 min.: *Self-normalized Cramer type moderate deviations for martingales.*

Reviewer

1. Math. Review of AMS

2. *Math. Journals:*
   Stochastic Process. Appl.;
   Ann. I.H.P. Probab. Statist.;
   Comm. Statist. Theory Methods;
   Methodol. Comput. Appl. Probab.;
   Statist. Probab. Lett.
   Electron. J. Probab.;
   Sci. China Math.;
   Chaos, Solitons & Fractals;
   Algorithmica

Some honors

Young Scholar Award of Tianjin Mathematical Society (1st class), 2017