



Louis H. Y. CHEN

Tan Chin Tuan Centennial Professor
Director, Institute for Mathematical Sciences
National University of Singapore
3 Prince George's Park,
Singapore 118402
Tel: (65) 6516-1900 Fax: (65) 6873-8292
Email: imsdir@nus.edu.sg , matchyl@nus.edu.sg

RESEARCH INTERESTS

1. Applied probability
2. Stein's method
3. Applications to computational biology

SELECTED PUBLICATIONS

1. On the convergence of Poisson binomial to Poisson distributions, *Ann. Probab.* **2** (1974), 178-180
2. Poisson approximation for dependent trials. *Ann. Probab.* **3** (1975), 534-545
3. An approximation theorem for sums of certain randomly selected indicators. *Z. Wahrsch. Verw. Gebiete.* **33** (1975), 69-74
4. An approximation theorem for convolutions of probability measures. *Ann. Probab.* **3** (1975), 992-999
5. (With S. T. Ho) An L_p bound for the remainder in a combinatorial central limit theorem. *Ann. Probab.* **6** (1978), 231-249
6. Two central limit problems for dependent random variables. *Z. Wahrsch. Verw. Gebiete.* **43** (1978), 223-243
7. A martingale inequality for the square and maximal functions. *Ann. Probab.* **7** (1979), 1051-1055
8. Martingale transform and random Abel-Dini series. *Ann. Probab.* **8** (1980), 475-482
9. Martingale convergence via the square function. *Proc. Amer. Math. Soc.* **83** (1981), 125-127
10. Poincaré-type inequalities via stochastic integrals. *Z. Wahrsch. Verw. Gebiete.* **69** (1985), 251-277
11. (With J. H. Lou) Characterization of probability distributions by Poincaré-type inequalities. *Ann. Inst. H. Poincaré Sect. B (N.S.)* **23** (1987), 91-110
12. The central limit theorem and Poincaré-type inequalities. *Ann. Probab.* **16** (1988), 300-304
13. (With A. D. Barbour and W. L. Loh) Compound Poisson approximation for nonnegative random variables via Stein's method. *Ann. Probab.* **20** (1992), 1843-1866
14. (With K. P. Choi) Some Asymptotic and large deviation results in Poisson approximation. *Ann. Probab.* **20** (1992), 1867-1876
15. Extending the Poisson approximation. *Science* **262** (1993), 379-380
16. (With A. D. Barbour and K. P. Choi) Poisson approximation for unbounded functions, I: independent summands. *Statist. Sinica* **5** (1995), 749-766
17. (With M. Roos) Compound Poisson approximation for unbounded functions on a group, with application to large deviations. *Probab. Theory and Relat. Fields* **103** (1995), 515-528
18. (With Qi-Man Shao) A non-uniform Berry-Esseen bound via Stein's method. *Probab. Theory and Relat. Fields* **120** (2001), 236-254
19. (With Qi-Man Shao) Normal approximation under local dependence. *Ann. Probab.* **32** (2004), 1985-2028.21
20. (With Aihua Xia) Stein's method, Palm theory and Poisson process approximation. *Ann. Probab.* **32** (2004), 2545-2569
21. (With T. N. T. Goodman and S. L. Lee) Asymptotic normality of scaling functions. *SIAM J. Math. Anal.* **36** (2004), 323-346
22. (With Ming-Ying Leung, K. P. Choi and Aihua Xia) Nonrandom clusters of palindromes in herpesvirus genomes. *J. Computat. Bio.* **12** (2005), 331-354