List of Publications - Shlomo Levental

1. Uniform Limit Theorems. Ph.D Thesis, University of Wisconsin-Madison,

2. Uniform Limit Theorems for Harris Recurrent Markov Chains. *Theory of Probability and Related Topics*, Vol 80, 101-118, 1988.

3. Proof of Liggett's Version of the Subadditive Erogodic Theorem. *Proceedings of American Mathematical Society*, Vol 102, 169-173, 1988.

4. A Uniform CLT for Uniformly Bounded Families of Martingale Differences. *Journal of Theoretical Probability*, Vol 2, 171-287, 1989.

5. On Pricing of Market-Indexed Certificates of Deposit. *Statistics & Probability* Letters, Vol 8, 329-334, 1989 (joint with J. Gardiner).

6. Weak Convergence in Explosive Autoregression. *The Annals of Statistics*, Vol 17, 1784-1794, 1989 (joint with Hira Koul).

7. Uniform CLT for Markov Chains with Discrete State Space. *Stochastics Processes and their Applications*, Vol 34, 245-253, 1990.

8. Uniform CLT for Markov Chains and its Invariance Principle: A Martingale Approach. *Journal of Theoretical Probability*, Vol 8, 549-570, 1995 (joint with J. Bae).

9. A Uniform CLT for Continuous Martingales. *Journal of the Korean Statistical Society*, Vol 24, 225-231, 1995 (joint with J. Bae).

10. Necessary and Sufficient Conditions for Absence of Arbitrage with Tame Portfolios. *Annals of Applied Probability*, Vol 5, 906-925, 1995 (joint with A.V. Skorokhod).

11. On the Possibility of Hedging options in the Presence of Transactions Costs. *Annals of Applied Probability*, Vol. 7, 410-443, 1997 (Joint with A.V. Skorokhod).

12. Permutations, Signs and the Brownian Bridge. *Statistics& Probability Letters*, Vol. 46, Issue 3, 270-276, **2000.**

13. A maximal inequality for real numbers with application to exchangeable random variables. *Theory of Probability and its Applications*, v 45, issue 3, pp 615-621, **2000**.

14. On coupling of Brownian Bridges. *Theory of Probability and its Applications*, v 46, issue 1, pp 169-175, **2001**.

15. The super-replication problem via probabilistic methods. *Annals of Applied Probability*, **2003**, Vol 13, No 2, 742-773**.** (joint with M. Ryznar and P. Jakubanes).

16. Some problems in the theory of super-replication: Market viability and multidimensional options. Technical report 594 , July 2000. (joint with M. Ryznar).

17. On a.s. convergence of the quadratic variation of Brownian Motion. *Stochastics Processes and their Applications*, Vol 106, Issue 2, August 2003, Pages 317-333. (joint with R. V. Erickson).

18 Prokhorov blocks and strong law of large numbers under rearrangements (joint with S. Chobanyan and V. Mandrekar). *Journal of Theoretical Probability*, Vol 17, Issue 3, Pages 647-672, 2004.

19**.** General Maximal Inequalities related to strong law of large numbers (Joint with S. Chobanyan and H. Salehi). *Math Notes* (*Zamekti*). Volume 81, 1, pages 98-111, 2007.

20. On the constant in Menshov-Rademacher inequality **(**Joint with S. Chobanyan and H. Salehi**).** *Journal of Inequalities and Applications*. Volume: 2006, Article ID 68969, pages 1-7, 2006.

21. A note on absorbing probabilities in one-dimensional random walk via complex-valued martingales (joint with D. Gilliland and Y. Xiao) *Statistics and Probability letter* Volume 77, pages 1098-1105, 2007.

22. Strong law of Large numbers under general moment conditions**(**Joint with S. Chobanyan and H. Salehi**)** *Electronic Communications in Probability*. Published on October 3, 2005, Volume 10 (2005), paper 22.

23. Optimal Sourcing under price uncertainty: A risk averse buyer's perspective (Joint with Santosh Mahapatra and Ram Narasimahan). *DSI conference Proceedings*, San Francisco, November 2005.

24. The behavior of available end to end bandwidth: A non-parametric approach (Joint with A. Chobanyan, M. Mutka and N. Xi). *The International Conference on Quantitative Evaluation of Systems (QEST 2006)*, University of California, Riverside, 2006.

27. Optimal Sourcing Strategy For A Risk Averse Buying Firm With Proportional Switching Cost (Joint with Santosh Mahapatra and Ram Narasimahan). *INFORMS conference*, November, 2006.

28. Equivalence of convergence for almost all signs and almost all rearrangements of functional series(joint with S. Chobanyan, V. Mandrekar) *Bulletin of Georgian National Academy of Sciences*, v.3, No. 2, 2009.

29. Towards Nikishin theorem on the rearrangement a.s. convergence of functional series(joint with S. Chobanyan, V. Mandrekar), 15 pages. *Functional Analysis and Its Applications*, *Vol*. 45, *No*. 1, 2011 (Translated from *Funktsional nyi Analiz i Ego Prilozheniya*, *Vol*. 45, *No*. 1, *pp*. 41–55, 2011)

30. "Integrated Contract and Market Procurement By A Risk Averse Buying Firm". (Joint with Santosh Mahapatra , Ram Narasimahan and Bisi Arnab). Submitted to *Production and Operations Management* (March 7, 2011)

31. Price Uncertainty and Risk-Averse Procurement: Integrating Contract and Open Market Alternatives (Joint with Santosh Mahapatra and Ram Narasimahan). *Submitted to the Transactions on Engineering Management*. (February 1, 2011)

32.   The Continuous-Time Principal-Agent Problem with Moral Hazard and Recursive Preferences(joint with Mark Schroder, Sumit Sinha), 38 pages. Submitted to *Stochastic Processes and their Applications***.** (April 2011). **(**This paper was presented in the Bachilier World congress in Mathematical Finance, June 2010, Toronto.)

34.   Functional Itô Formula(joint with Mark Schroder, Sumit Sinha), 19 pages. Submitted to *Operations Research* (June 9, 2011).   This paper was presented in a colloquium talk in the department)

35. A MAXIMUM INEQUALITY FOR REARRANGEMENTS OF SUMMANDS AND ASSIGNMENTS OF SIGNS (Joint with S.Chobanyan, H. Salehi) (Submitted to *Theory of Probability and its applications*, July 2011)

36. Almost Surely Convergent Summands of a Random Sum . (Joint with S.Chobanyan, V.Mandrekar) (will be submitted in the next few days to *Letters in Statistics and Probability*)

37. Optimal Contracting and Nash Equilibria in the Continuous-Time Principal-Agent Problem with Multiple Principals. (joint with Mark Schroder, Lening Kang). The paper is essentially ready. To be submitted soon.

38. A Maximum Principle for Multidimensional BSDEs. (joint with Mark Schroder, Sumit Sinha). The paper is essentially ready. To be submitted soon.

Unpublished Manuscripts

1. Hedging the American option with insufficient initial funds. (Joint with A.V. Skorokhod, 2001).

2. Continuous time arbitrage and constrained hedging. (joint with J. A. Demopolos, 2000).

3. A new probabilistic proof for Von Neumann's mean ergodic theorem via an exact formula for the second moment of the sample mean. (2007)

4. Prediction of an Extremal Behavior of an Available Bandwidth (Joint with A. Chobanyan, M. Mutka and N. Xi). (2008)

5. Non-Parametric Modeling of Available End-to-end Bandwidth With Prediction and Self-verification (Joint with A. Chobanyan, M. Mutka and N. Xi). (2008)