

### **List of main publications :**

1. Lumelskii, Ya. P., Feigin P. D. Unbiased variance estimators in the parametric case *Journal of Mathematical Sciences*, (2013), Vol. 189, No 6, 903-910
2. Feigin P. D., Lumelskii Ya. P. Nonparametric Change-Point Problems and Optimal Nested Plans. *Quality Technology and Quantitative Management*. 2012, Vol. 9 , No 2, 115-135.
3. Feigin P. D., Lumelskii Ya. P., Kryvoshayev A. V. Approximate confidence limits for the difference between parameters of two Pólya distributions. *Communication in Statist.-Theory and Methods*. 2012, Vol. 41 , No 8, 1428-1454.
4. Feigin P., Gurevich G., Lumelskii Ya. Nested Plans for Sequential Change Point Detection - The Parametric Case. In: *Statistical Models and Methods for Biomedical and Technical Systems*, (2008), Springer, Birkhauser, Boston: 199-212.
5. Lumelskii Ya., Volkovich Z. On comparison of nonparametric and parametric approximate confidence bounds for the probability  $\Pr(\mathbf{X} < \mathbf{Y})$ . *Journal of Mathematical Sciences*, (2007), Vol. 146 , No 4, 6016-6021.
6. Feigin P., Lumelskii Ya. Random Walk Plans for Sports Matches with Application to Chess. *Proceedings of International Conference LAD 2004 "Longevity, Aging and Degradation Models in Reliability, Public Health, Medicine and Biology,"* St. Petersburg State Polytechnical University, Vol. **2**, 2004, 152-164.
7. Lumelskii Ya., Voinov V., Nikulin M., Feigin P. Unbiased Estimators for the Multivariate Pólya and Wishart Distributions. *Proceedings of the International Conference "Statistical Methods for Biomedical and Technical Systems*, Limassol, Cyprus, 2006, 381-386.
8. Lumelskii Ya., Voinov V., Nikulin M., Feigin P. On a generalization of classical random sampling scheme and unbiased estimation. *Communication in Statist. Theory and Methods*, (2007),**36**, 693-705.
9. Lumelskii, Ya., Gurevich, G., Feigin, P. D. Nested Plans as Sequential Quality Control Schemes for Detecting Change in Multivariate Normal Distribution. *Quality Technology and Quantitative Management*,(2006), **3**, 493-512.
10. Feigin P.D., Lumelskii Ya. P. On nested sequential sampling plans for reliability control, Proceedings of "Second International conference on Mathematical Methods in Reliability ", 2000, Universit 'Victor Segalen-Bordeaux 2, Abstracts book, Vol. 1, 393-396.
11. Lumelskii Ya. P., Feigin P. D. Embedded polynomial plans of random walks and their applications. *Journal of Mathematical Sciences* , Vol. 127 (2005), no. 4, 2103-2113.

12. Lumelskii Ya. P., Feigin P. D., Tsilova, E. G. Polya distributions, combinatorial identities, and generalized Stirling numbers. *Journal of Mathematical Sciences*, Vol. 127 (2005), no. 4, 2073-2081.
13. Kotz S., Lumelskii Y., Pensky M. The stress-strength model and its generalizations. Theory and applications. 2003. World Scientific Publishing. 253 pp.
14. Feigin P.D., Lumelskii Ya. P., Volkovich Z.E. Approximate nonparametric confidence intervals for the probability  $\Pr(\mathbf{X} < \mathbf{Y})$ . *Proceedings of International Conference "Advances in Statistical Inferential Methods, Theory and Application,"*, 2003, Almaty, 75-87.
15. Braverman M., Lumelskii Ya. Chebyshev systems and estimation theory for discrete distributions. *Statist. Probab. Lett.*, Vol. 58 (2002), no. 2, 157–165.
16. Ivshin V.V., Lumelskii Ya. P. Unbiased estimators for density functions and probabilities of linear inequalities in the multivariate normal case, *Proceedings of the Fifteenth Seminar-Stability Problems for Stochastic models, Perm, Russia, 1992*, TVP Publishers, 1994, 71-80.
17. Lumelskii Ya. P. Markov Random Walks in the Space of a Sufficient Statistic and Statistical Inference, *Journal of Mathematical Sciences*, Vol. 88(1998), No 6, 862-870.
18. Kameneva S.V., Lumelskii Ya. P. The Problem of Testing Hypotheses Concerning the Parameters of the Polya Distribution, *Journal of Mathematical Sciences*, Vol. 88 (1998), No 6, 795-800.
19. Antonova E. S., Lumelskii Ya. P. Probability characteristics of regulations of sport competitions, *Journal of Mathematical Sciences*, Vol. 103(2001), No 4, 497-505.
20. Feigin P.D., Lumelskii Ya. P. On Confidence Limits for the Difference of Two Binomial Parameters, *Communication in Statist. Theory and Methods*, Vol. 29 (2000), No. 1, 131-141.
21. Lumelskii Ya. P. Random walks related to generalized urn schemes, *Soviet Math. Dokl.* V. 14 (1973), No 2, 628-632.
22. Lumelskii Ya. P., Lvovskii Ya. M. Asymptotic formulas for multidimensional Polya distributions, *Soviet Math. Dokl.* V. 20 (1979), No 3, 494-498.
23. Lumelskii Ya. P. Unbiased sufficient estimators for probabilities in the case of a multivariate normal law. *Vestnik Moskov. Univ. Ser. Mat. Meh.* V. 23 (1968), No 6, 14-17. Selected translations in mathematical statistics and probability. Vol. 13. American Mathematical Society, Providence, R.I., 1973, 251-256.
24. Lumelskii Ya. P., Staroselskii B. G. On completeness of plans in one scheme of random walks, *Mathematical Notes of the Academy of Sciences of the USSR*, V. 17 (1975), No 5, 467-470.

25. Lumelskii Ya. P., Tsirulnikova L. M. Probabilistic proof of Combinatorial identities., . *Izv. Vissn. Uchebn. Zaved. Mat.* . 1976, no. 7, 52-55.
26. Lumelskii Ya. P. Confidence limits for linear functions of unknown parameters, *Theory of Probability and its Applications*, V. 14 (1969), No 2, 364-367.
27. Lumelskii Ya. P., Sapognikov P. N. Unbiased estimates of density functions, *Theory of Probability and its Applications*, V. 14 (1969), No 2, 357-364.
28. Lumelskii Ya. P. Estimates of certain functions of unknown parameters in problems of random walk, *Theory of Probability and its Applications*, V. 14 (1969), No 4, 718-719. Correction :*Theory of Probability and its Applications*, V. 16 (1971) No. 2, 402.
29. Abusev, R. A., Lumelskii Ya. P. Unbiased estimators and classification problems for multivariate normal populations, *Theory of Probability and its Applications*, V. 25 (1980), No 2, 377-384 .
30. Lumelskii Ya. P. Random walk schemes and parametric estimation problems, *Theory of Probability and its Applications*, V. 25 (1980), No 3, 647-648.
31. Lumelskii Ya. P. Random walks and their applications, *Theory of Probability and its Applications*, V. 29 (1984), No 4, 849-850.
32. Lumelskii Ya. P. On some problems of statistical control and their applications, *Theory of Probability and its Applications*, V. 37 (1992), No 4, 727-728.
33. Lumelskii Ya. P., Medvedeva N. V. The Standard Error of the Unbiased Estimator of the Normal Density, *Journal Soviet Mathematics*, V. 39 (1987), No 2, 2595-2598.
34. Lumelskii Ya. P., Chichagov V.V. Unbiased Estimation for Homogeneous Markov Chains, *Journal Soviet Mathematics*, V. 39 (1987), No 2, 2599-2603.
35. Lumelskii Ya. P. Random Walks and Nonparametric Tests, *Journal Soviet Mathematics*, V. 39 (1987), No 4, 2888-2890.
36. Belyayev Yu. K., Lumelskii Ya. P. Multidimensional Poisson walks, *Journal Soviet Mathematics*, V. 40(1988), No 2, 162-165.
37. Lumelskii Ya. P. Scheme of Random Walks and Sequential Estimation of the Results of Control, *Journal Soviet Mathematics*, V. 40(1988), No 2, 194-206.
38. Lumelskii Ya. P., Shekhovtsova M. G. Poisson walks and reliability estimates, *Journal Soviet Mathematics*, V. 40(1988), no. 2, 207-214.
39. Lumelskii Ya. P. Control According to a Quality Criterion with Classification Errors, *Journal Soviet Mathematics*, V. 41(1988), No 1, 826-829.
40. Lumelskii Ya. P., Tsylova E.G. Limiting Distributions and Estimation in Generalized Polya Random Walk Scheme, *Journal Soviet Mathematics*, V. 53(1991), No 6, 558-568.

41. Lumelskii Ya. P., Chichagov V.V. Estimation in the Markov Random Walk Scheme, *Journal Soviet Mathematics*, V. 53(1991), No 6, 569-574.
42. Vedernikova A.P., Lumelskii Ya. P. Unbiased Estimation of Linear Functionals in the Case of Inverse Normal Distribution, *Journal Soviet Mathematics*, V. 56(1991), No 3, 2407-2409.
43. Lumelskii Ya. P., Frolov S.I. Random Walks and a Nonparametric Criterion for Agreement in the Problem of Comparison of Two Samples, *Journal Soviet Mathematics*, V. 56(1991), No 3, 2466-2471.
44. Lumelskii Ya. P. On Inadmissibility of Biased Estimators Relative to the Quadratic Loss, *Journal Mathematical Sciences*, V. 75(1995), No 1, 1401- 1403.
45. Lumelskii Ya. P. Statistical Estimators Minimizing Deviation, *Journal Mathematical Sciences*, V. 75 (1995), No 2, 1510 - 1512.
46. Lumelskii Ya. P., Lvovskii Ya. M. Construction Asymptotic Expansions for Multidimensional Polya Distributions, *Journal Mathematical Sciences*, V. 81(1996), No 4, 2835-2842.
47. Lumelskii Ya. P. Construction of asymptotically optimal classification tests in the case of a multivariate normal distribution, *Engineering Cybernetics*, 1972, V.10, No 2, 316-319.
48. Lumelskii Ya. P. Unbiased estimates of a priori distributions and their application, *Engineering Cybernetics*, 1973, V.11, No 1, 70-80.
49. Zarubina M. M., Lumelskii Ya. P. Estimation of the priori distribution of the number of defective articles, *Engineering Cybernetics*, 1977, V.15, No 5, 62-67.
50. Belyayev Yu. K., Lumelskii Ya. P. Estimation of polynomials on the basis of restricted plans in random-walk schemes, *Engineering Cybernetics*, 1979, V.17, No 1, 47-52.
51. Lumelskii Ya. P. The use of the negative hypergeometric distribution for the determination of a nonbiased estimate of production rejection, *Industrial Laboratory*, V. 32 (1966), No 3, 407-412.
52. Belyayev Yu. K., Lumelskii Ya. P. Effectiveness rating of single sampling acceptance inspection, *Industrial Laboratory*, V. 34 (1968), No 5, 686-691.
53. Bobrov N.E., Lumelskii Ya. P. Optimal curtailed quality control plans by an alternative attribute, *Industrial Laboratory*, V. 51 (1985), No 1, 48-52.
54. Lumelskii Ya. P. Confidence limits for the total number of defectives in quality control by the one-step Polya plan, *Industrial Laboratory*, V. 52 (1986), No 7, 632-635.
55. Gil L.R., Lumelskii Ya. P. Inspection plans using a quality attribute and their applications, *Industrial Laboratory*, V. 58 (1992), No 10, 970-976.