



Name: Vassily Voinov, PhD (Joint Institute for Nuclear Research, Russia)

Rank: Associate Chair/Professor

Department: Operations Management and Information Systems

College: Bang College of Business

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Areas of Research:

Theoretical and applied mathematical statistics

Research Interests:

Modified chi-squared tests, Vector-valued tests, Application of tests in: econometrics, quality management, political science, etc.

Main Publications:

Books:

Journal Articles:

1. V. Voinov. (2006). On optimality of Rao-Robson-Nikulin criterion. Industrial laboratory, Vol.72, pp.65-70 (In Russian).
2. N. Pya, V. Voinov. (2006). The non-uniqueness of a non-negative integer solution of a system of linear diophantine equations with applications to integer programming, genetics, reliability, etc. Central Asian J. of Management, Economics and Social Research, Vol.5, pp.42-47, KIMEP, Almaty
3. R. Alloyarova, M. Nikulin, N. Pya, V. Voinov. (2007). The Power-Generalized Weibull probability distribution and its use in survival analysis, Communications in Dependability and Quality Management, Vol. 10, 2007, pp.5-15.
4. Ya. Lumelskii, V. Voinov, M. Nikulin, P. Feigin (2007) On a generalization of the classical random sampling scheme and unbiased estimation. Common. Statist. Theory and Methods, Vol. 36, pp, 693-705

Book Chapters:

1. Nikulin, V.G. Voinov. (2006) Chi-squared testing, In: Encyclopedia of Statistical Sciences, (S. Kotz, N. Balakrishnan, C.B. Read, B. Vidakovich, eds.), 2nd Edition, Vol. 2, John Wiley & Sons, Hoboken, New Jersey, 2006, pp. 912-921.
2. V.Voinov, R.Alloyarova, N.Pya (2008) Recent achievements in modified chi-squared goodness-of-fit testing, Chapter in the book: "Statistical Models and Methods for Biomedical and Technical Systems", edited by F.Vonta, M. Nikulin, N. Limnios and C. Huber. Birkhauser, Boston, 2007, pp. 249-265.
3. V.Voinov, R.Alloyarova, N.Pya (2007) A modified chi-squared goodness-of-fit test for a modified chi-squared goodness-of-fit test for the three-parameter Weibull distribution and its applications in reliability Chapter 13 in the book: "Mathematical Methods in Survival Analysis, Reliability and Quality of Life", editors C.Huber, N.Limnios,M.Mesbah, M.Nikulin. ISTE &WTLE, London, 2007, pp.193-206
4. V. Voinov, M. Nikulin, N. Pya (2008) Independent χ_1^2 distributed in the limit components of some chi-squared tests, In the Book: "Recent Advances in Stochastic Modeling and Data Analysis" Editor: Christos H. Skiadas, Publisher: World Scientific Publishing Co Pte Ltd., 2007, pp.243-250.

Conference Proceedings:

1. V. Voinov, R. Alloyarova, N. Pya. (2006). A modified chi-squared test for the three-

- parameter Weibull distribution and its applications in reliability. In: Proc. Of the Int. Conf. on Degradation, Damage, Fatigue and Accelerated Life Models in Reliability Testing, May 22-24, 2006 – Angers, France, pp.82-88.
2. R. Alloyarova, M. Nikulin, N. Pya, V. Voinov. (2006). The power-generalized Weibull probability distribution and its use in survival analysis, in: Proc. Of the Int. Conf. on Statistical Methods for Biomedical and Technical Systems, Limassol, Cyprus, May 29-31, 2006, pp. 189-194.
 3. O. Vlasov, V. Voinov. (2006). On optimizing advertising activities of a company. Proc.of the 5th Annual KIMEP Int. Research Conf. (KIRC), KIMEP, Almaty

Patent:

Conferences attended:

1. The 12th Int. Conf. On-Applied Stochastic Models and Data Analysis (ASMDA 2007). May 29-31, June 1, 2007 – Chania, Crete, Greece. **Two talks:** V.Voinov, M.S.Nikulin, N.Pya “Independent χ_1^2 distributed in the limit components of some chi-squared tests” and V.Voinov, N.Pya “A note on vector-valued goodness-of-fit tests”.
2. ALT 2006, Int. Conf. on Degradation, Damage, Fatigue and Accelerated Life Models in Reliability Testing, May 22-24, 2006 – Angers, France. **The talk** V. Voinov, R. Alloyarova, N. Pya “A modified chi-squared test for the three-parameter Weibull distribution and its applications in reliability”.
3. BIOSTAT 2006, Int. Conf. on Statistical Methods for Biomedical and Technical Systems, Limassol, Cyprus, May 29-31, 2006. **Talks:** R. Alloyarova, M. Nikulin, N. Pya, V. Voinov “The power-generalized Weibull probability distribution and its use in survival analysis”, Ya. Lumelskii, V. Voinov, M. Nikulin, P. Feigin “Unbiased estimators for the multivariate Polya distributions”.

Seminars:

Research funds received in the last five academic years:

(a) Internal (KIMEP) 500 \$

Title: Decompositions of chi-squared type tests on asymptotically independent chi-squared one distributed components to be used for constructing more powerful tests.

Consulting Projects

- (a) Supporting Company:
- (b) Project Title:
- (c) Team:
- (d) Amount:
- (e) Year:

(b) External

If external funds received, indicate below:

- (a) Name (s) of the supporting organization (s)
- (b) Project titles

Other members of the research group, if any:

Affiliations of the group members, if any:

Local collaboration, if any:

International collaboration, if any:

- Victor Segalen Bordeaux 2 University, Bordeaux, France.

Consolidated Information:

Research Outcomes in the last five years

- (a) No of refereed published papers.....4
- (b) No of internal working papers/reports
- (c) No of conferences attended.....3
- (d) No of papers published in refereed conference proceedings.....3
- (e) No of refereed books
- (f) No of refereed book chapters.....4
- (g) No of patents developed
- (h) No of consulting projects
- (i) No of Seminars