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## André I. Khuri

### PUBLICATIONS

#### Books

1. Khuri, A.I. and Cornell, J.A. (1987). *Response Surfaces*. Dekker, New York, 405 pages.
2. Khuri, A.I. (1993). *Advanced Calculus with Applications in Statistics*. Wiley, New York, 466 pages.
3. Khuri, A.I. and Cornell, J.A. (1996). *Response Surfaces*, Second Edition. Dekker, New York, 510 pages.
4. Khuri, A.I., Mathew, T., and Sinha, B.K. (1998). *Statistical Tests for Mixed Linear Models*. Wiley, New York, 352 pages.
5. Khuri, A.I. (2003). *Advanced Calculus with Applications in Statistics*, Second Edition. Wiley, New York, 673 pages.
6. Khuri, A. I. (2006) (Editor). *Response Surface Methodology and Related Topics*. World Scientific, Singapore, 457 pages.
7. Khuri, A. I. (2009). *Linear Model Methodology*. Chapman & Hall/CRC, London, 562 pages.

#### Refereed Chapters in Books

1. Khuri, A.I. (1990). “The Analysis of Multiresponse Experiments: A Review.” In: *Statistical Design and Analysis of Industrial Experiments*. Subir Ghosh, Editor. Dekker, New York, pp. 231-246.
2. Khuri, A.I. (1996). “Multiresponse Surface Methodology.” In: *Handbook of Statistics, Design and Analysis of Experiments*, Volume 13. Subir Ghosh and C.R. Rao, Editors. Elsevier, Amsterdam, pp. 377-406.
3. Khuri, A.I. and Valeroso, E.S. (1999). “Optimization Methods in Multiresponse Surface Methodology.” In: *Statistical Process Monitoring and Optimization*. Sung H. Park and G.G. Vining, Editors. Dekker, New York, pp. 411-433.

4. Khuri, A.I. (2003). "Current Modeling and Design Issues in Response Surface Methodology: GLMs and Models with Block Effects." In: *Handbook of Statistics, Statistics in Industry*, Volume 22. R. Khattree and C.R. Rao, Editors. Elsevier, Amsterdam, pp. 209-229.
5. Khuri, A. I. and Mukhopadhyay, S. (2006). "GLM Designs: The Dependence on Unknown Parameters Dilemma." In: *Response Surface Methodology and Related Topics*. André I. Khuri, Editor. World Scientific, Singapore, pp. 203-223.

## Articles in Refereed Statistical Journals

1. Hijab, W.A. and Khuri, A.I. (1971). "Concentrated Force in Quarter-Space With a Free or Fixed Half-Plane and Mixed Boundary Conditions on the Other One." *Journal Fur Die Reine Und Angewandte Mathematik*, 246, 189-201.
2. Khuri, A.I. (1975). "The Shrinking  $2 \times c$  Table." Letter to the Editor, *Amer. Statist.*, 29, 68.
3. Khuri, A.I. (1976). "Application of Papkovitch Functions to Three-Dimensional Thermo Elastic Problems." *Journal Fur Die Reine Und Angewandte Mathematik*, 282, 68-79.
4. Hamdan, M.A., Pirie, W.R., and Khuri, A.I. (1976). "Unbiased Estimation of the Common Mean Based on Incomplete Bivariate Normal Samples." *Biometrische Zeitschrift*, 18, 245-249.
5. Khuri, A.I. (1976). "A Constrained Least-Squares Problem." *Commun. Statist.-Simula. Computa.*, B5, 82-84.
6. Good, I.J. and Khuri, A.I. (1976). "Forms For the Distribution of a Ratio in Terms of Characteristic Functions." *Commun. Statist.-Simula. Computa.*, B5, 209-211.
7. Khuri, A.I. and Cornell, J.A. (1977). "Secondary Design Considerations for Minimum Bias Estimation." *Commun. Statist.*, A6, 631-647.
8. Khuri, A.I. and Good, I.J. (1977). "The Distribution of Quadratic Forms in Non-Normal Variables and an Application to the Variance Ratio." *J. Roy. Statist. Soc.*, B39, 217-221.
9. Hamdan, M.A., Khuri, A.I., and Crews, S.L. (1978). "A Test for Equality of Means of Two Correlated Normal Variates With Missing Data on Both Responses." *Biometrische Zeitschrift*, 20, 667-674.

10. Khuri, A.I. (1978). "A Conservative Sample Size For the Comparison of Several Proportions." *Commun. Statist.*, A7, 1283-1293.
11. Cornell, J.A. and Khuri, A.I. (1979). "Obtaining Constant Prediction Variance on Concentric Triangles for Ternary Mixture Systems." *Technometrics*, 21, 147-157.
12. Myers, R.H. and Khuri, A.I. (1979). "A New Procedure for Steepest Ascent." *Commun. Statist.*, A8, 1359-1376.
13. Khuri, A.I. and Myers, R.H. (1979). "Modified Ridge Analysis." *Technometrics*, 21, 467-473.
14. Khuri, A.I. (1980). "Simultaneous Testing of Parameter Subsets in Less Than Full Rank Models." *Commun. Statist.*, A9, 617-627.
15. Khuri, A.I. and Conlon, M. (1981). "Simultaneous Optimization of Multiple Responses Represented by Polynomial Regression Functions." *Technometrics*, 23, 363-375.
16. Khuri, A.I. and Myers, R.H. (1981). "Design Related Robustness of Tests in Regression Models." *Commun. Statist.*, A10, 223-235.
17. Khuri, A.I. (1981). "Simultaneous Confidence Intervals For Functions of Variance Components in Random Models." *Journal of the Amer. Statist. Assoc.*, 76, 878-885.
18. Khuri, A.I., (1982). "Direct Products: A Powerful Tool For the Analysis of Balanced Data." *Commun. Statist.*, A11, 2903-2920.
19. Shelton, J.T., Khuri, A.I., and Cornell, J.A. (1983). "Selecting Check Points for Testing Lack of Fit in Response Surface Models." *Technometrics*, 25, 357-365.
20. Khuri, A.I. (1984). "A Note on D-Optimal Designs for Partially Nonlinear Regression Models." *Technometrics*, 26, 59-61.
21. Khuri, A.I. (1984). "Interval Estimation of Fixed Effects and of Functions of Variance Components in Balanced Mixed Models." *Sankhyā*, Series B, 46, 10-28.
22. Sahai, H., Khuri, A.I., and Kapadia, C.H. (1985). "A Second Bibliography on Variance Components." *Commun. Statist.*, A14, 63-115.
23. Khuri, A.I. and Sahai, H. (1985). "Variance Components Analysis: A Selective Literature Survey." *International Statistical Review*, 53, 279-300.

24. Khuri, A.I. (1985). "A Test for Lack of Fit of a Linear Multiresponse Model." *Technometrics*, 27, 213-218.
25. Khuri, A.I. (1986). "Exact Tests for the Comparison of Correlated Response Models with an Unknown Dispersion Matrix". *Technometrics*, 28, 347-357.
26. Khuri, A.I. (1987). "Measures of Imbalance for Unbalanced Models." *Biometrical Journal*, 29, 383-396.
27. Wijesinha, M.C. and Khuri, A.I. (1987). "Construction of Optimal Designs to Increase the Power of the Multiresponse Lack of Fit Test." *Journal of Statistical Planning and Inference*, 16, 179-192.
28. Wijesinha, M.C. and Khuri, A.I. (1987). "The Sequential Generation of Multiresponse D-optimal Designs when the Variance-Covariance Matrix is not Known." *Commun. Statist. Simula. Computa.*, B16, 239-259.
29. Khuri, A.I. (1987). "An Exact Test for the Nesting Effect's Variance Component in an Unbalanced Random Two-Fold Nested Model." *Statistics and Probability Letters*, 5, 305-311.
30. Khuri, A.I. and Littell, R.C. (1987). "Exact Tests for the Main Effects Variance Components in an Unbalanced Random Two-Way Model." *Biometrics*, 43, 545-560.
31. Khuri, A.I. (1988). "A Measure of Rotatability for Response Surface Designs." *Technometrics*, 30, 95-104.
32. Myers, R.H., Khuri, A.I. and Carter, W.H. (1989). "Response Surface Methodology: 1966-1988." *Technometrics*, 31, 137-157.
33. Khuri, A.I. (1989). "Testing a Covariance Matrix Structure in a Mixed Model with no Empty Cells." *Journal of Statistical Planning and Inference*, 22, 117-125.
34. Khuri, A.I. and Good, I.J. (1989). "The Parameterization of Orthogonal Matrices: A Review Mainly for Statisticians." *South African Statistical Journal*, 23, 231-250.
35. Khuri, A.I. (1990). "The Analysis of Multiresponse Experiments: A Review." In: *Statistical Design and Analysis of Industrial Experiments*, Subir Ghosh, Ed., New York: Marcel Dekker, pp. 231-246.
36. Khuri, A.I. (1990). "Exact Tests for Random Models with Unequal Cell Frequencies in the Last Stage." *Journal of Statistical Planning and Inference*, 24, 177-193.

37. Khuri, A.I. (1990). "Multiresponse Rotatability." *Journal of Statistical Planning and Inference*, 25, 1-6.
38. Khuri, A.I. (1990). "The Effect of Response Scaling on the Detection of Linear Dependencies Among Multiresponse Data." *Metrika*, 37, 217-231.
39. Khuri, A.I. and Ghosh, M. (1990). "Minimal Sufficient Statistics for the Unbalanced Two-Fold Nested Model". *Statistics and Probability Letters*, 10, 351-353.
40. Gallo, J. and Khuri, A.I. (1990). "Exact Tests for the Random and Fixed Effects in an Unbalanced Mixed Two-Way Cross-Classification Model". *Biometrics*, 46, 1087-1095.
41. Khuri, A.I. and Vining, G.G. (1991). "Conditions Required for the Mean Response to Fall Within Specified Bounds." *Journal of Statistical Planning and Inference*, 28, 125-136.
42. Wijesinha, M.C. and Khuri, A.I. (1991). "Robust Designs for First-Order Multiple Design Multivariate Models." *Commun. Statist.*, A20, 2987-2999.
43. Khuri, A.I. (1992). "Tests Concerning a Nested Mixed Model with Heteroscedastic Random Effects". *Journal of Statistical Planning and Inference*, 30, 33-44.
44. Khuri, A.I. (1992). "Diagnostic Results Concerning a Measure of Rotatability". *Journal of the Royal Statistical Society, Series B*, 54, 253-267.
45. Khuri, A.I. (1992). "Response Surface Models with Random Block Effects." *Technometrics*, 34, 26-37.
46. Myers, R.H., Khuri, A.I., and Vining, G.G. (1992). "Response Surface Alternatives to the Taguchi Robust Parameter Design Approach." *Amer. Statist.*, 46, 131-139.
47. Khuri, A.I. (1991). "Blocking with Rotatable Designs." *Calcutta Statistical Association Bulletin*, 41, 81-98 (this volume actually appeared in March, 1992).
48. Khuri, A.I. (1993). "A Note on Scheffé's Confidence Intervals." *Amer. Statist.*, 47, 176-178.
49. Khuri, A.I. (1994). "The Probability of a Negative Linear Combination of Independent Mean Squares." *Biometrical Journal*, 36, 899-910.
50. Khuri, A.I. (1994). "Effect of Blocking on the Estimation of a Response Surface." *Journal of Applied Statistics*, 21, 305-316.

51. Khuri, A.I. (1993). "Response Surface Methodology Within the Framework of GLM." *Journal of Combinatorics, Information, and System Sciences*. A special issue in honor of C.R. Rao, eds. D.V. Chopra and D. Anderson, 18, 193-202 (this volume appeared in January, 1995).
52. Khuri, A.I., Mathew, T., and Nel, D.G. (1994). "A Test to Determine Closeness of Multivariate Satterthwaite's Approximation." *Journal of Multivariate Analysis*, 51, 201-209.
53. Khuri, A.I. (1995). "A Measure to Evaluate the Closeness of Satterthwaite's Approximation." *Biometrical Journal*, 37, 547-563.
54. Khuri, A.I. (1995). "A Test to Detect Inadequacy of Satterthwaite's Approximation in Balanced Mixed Models." *Statistics*, 27, 45-54.
55. Khuri, A.I. (1996). "Multiresponse Surface Methodology." In: *Handbook of Statistics*, Volume 13, Subir Ghosh and C.R. Rao, Eds., Amsterdam: Elsevier Science B.V., pp. 377-406.
56. Khuri, A.I. (1996). "A Method for Determining the Effect of Imbalance." *Journal of Statistical Planning and Inference*, 55, 115-129.
57. Khuri, A.I. (1996). "Response Surface Models with Mixed Effects." *Journal of Quality Technology*, 28, 177-186.
58. Khuri, A.I., Kim, H.J., and Um, Y. (1996). "Quantile Plots of the Prediction Variance for Response Surface Designs." *Computational Statistics and Data Analysis*, 22, 395-407.
59. Kim, H.J., Um, Y., and Khuri, A.I. (1996). "Quantile Plots of the Average Slope Variance for Response Surface Designs." *Commun. Statist. Simula. Computa.*, B25, 995-1014.
60. Khuri, A.I. (1997). "Quantile Dispersion Graphs for Analysis of Variance Estimates of Variance Components." *Journal of Applied Statistics*, 24, 711-722.
61. Khuri, A.I. (1997). "Minimal Sufficient Statistics for a General Class of Mixed Models." *Statistics and Probability letters*, 35, 1-7.
62. Khuri, A.I. and Valeroso, E.S. (1998). "Multiresponse Surface Models with Block Effects." *Journal of Statistical Planning and Inference*, 73, 7-20.
63. Khuri, A.I. and Cornell, J.A. (1998). "Lack of Fit Revisited." *Journal of Combinatorics, Information, and System Sciences*. A special issue dedicated to Professor J.N. Srivastava, 23, 193-208.

64. Khuri, A.I. and Lee, J. (1998). "A Graphical Approach for Evaluating and Comparing Designs for Nonlinear Models." *Computational Statistics and Data Analysis*, 27, 433-443.
65. Khuri, A.I. (1998). "On Unweighted Sums of Squares in Unbalanced Analysis of Variance." *Journal of Statistical Planning and Inference*, 74, 135-147.
66. Khuri, A.I. (1999). "A Necessary Condition for a Quadratic Form to Have a Chi-Squared Distribution: An Accessible Proof." *International Journal of Mathematical Education in Science and Technology*, 30, 335-339.
67. Khuri, A.I. and Valeroso, E.S. (1999). "Optimization Methods in Multireponse Surface Methodology." In: *Statistical Process Monitoring and Optimization*, Sung H. Park and G.G. Vining, Eds., New York: Marcel Dekker, pp. 411-433.
68. Khuri, A.I., Harrison, J.M., and Cornell, J.A. (1999). "Using Quantile Plots of the Prediction Variance for Comparing Designs for a Constrained Mixture Region: An Application Involving a Fertilizer Experiment." *Applied Statistics (J. Roy. Statist. Soc., Series C)*, 48, 521-532.
69. Valeroso, E.S. and Khuri, A.I. (1999). "Multiresponse Surface Models with Random Block Effects." *Journal of Statistical Planning and Inference*, 79, 157-173.
70. Lee, J. and Khuri, A.I. (1999). "Graphical Technique for Comparing Designs for Random Models." *Journal of Applied Statistics*, 26, 933-947.
71. Khuri, A.I. (2000). "Designs for Variance Components Estimation: Past and Present." *International Statistical Review*, 68, 311-322.
72. Lee, J. and Khuri, A.I. (2000). "Quantile Dispersion Graphs for the Comparison of Designs for a Random Two-Way Model." *Journal of Statistical Planning and Inference*, 91, 123-137.
73. Paul, S. and Khuri, A.I. (2000). "Modified Ridge Analyses Under Nonstandard Conditions." In a special issue of *Communications in Statistics, Theory and Methods*, 29, 2181-2200, on *Applied Regression Analysis*, Norman Draper and Phillip Prescott, Eds.
74. Khuri, A. I. (2001). "An Overview of the Use of Generalized Linear Models in Response Surface Methodology." *Nonlinear Analysis*, 47, 2023-2034.
75. Lee, J. and Khuri, A. I. (2001). "Modeling the Probability of a Negative ANOVA Estimate of a Variance Component." *Calcutta Statistical Association Bulletin*, 51, 31-45.

76. Khuri, A. I. (2001). "The Integrated Mean Squared Error Design Criterion for a Multiresponse Model." *Statistics and Applications*, 3, 1-8. (This was an invited paper in a special volume of the Journal to commemorate the 80th birthday of Professor M. N. Das.)
77. Khuri, A. I. and Casella, G. (2002). "The Existence of the First Negative Moment Revisited." *The American Statistician*, 56, 44-47.
78. Khuri, A. I. (2002). Reply to a Comment by Jeff Terpstra Concerning "The Existence of the First Negative Moment Revisited." *The American Statistician*, 56, 254-255.
79. Lee, J. and Khuri, A. I. (2002). "Comparison of Confidence Intervals on the Among-Group Variance Component for the Unbalanced One-Way Random Model." *Communications in Statistics: Simulation and Computation*, 31, 35-47.
80. Khuri, A. I. (2002). "Invariance of Prediction from a Mixture Model Under a Nonsingular Linear Transformation." *Journal of Propagations in Probability and Statistics*, 2, 145-148. (This paper was invited by the Editor-in-Chief of the Journal, Professor K. C. Chang.)
81. Khuri, A. I. (2002). "Graphical Evaluation of the Adequacy of the Method of Unweighted Means." *Journal of Applied Statistics*, 29, 1107-1119.
82. Robinson, K. S. and Khuri, A. I. (2003). "Quantile Dispersion Graphs for Evaluating and Comparing Designs for Logistic Regression Models." *Computational Statistics and Data Analysis*, 43, 47-62.
83. Khuri, A. I. (2003). "Current Modeling and Design Issues in Response Surface Methodology: GLMs and Models with Block Effects." In: *Handbook of Statistics, Statistics in Industry*, Volume 22, R. Khattree and C. R. Rao, Eds., Amsterdam: Elsevier Science B.V., pp. 209-229.
84. Khuri, M. A. and Khuri, A. I. (2003). "Corrections to a Well-Known Proposition Concerning the Two-Dimensional Density Function." *International Journal of Mathematical Education in Science and Technology*, 34, 787-792.
85. Khuri, A. I. (2004). "Applications of Dirac's Delta Function in Statistics." *International Journal of Mathematical Education in Science and Technology*, 35, 185-195.
86. Khuri, A. I. (2005). "An Alternative Proof for a Continuity Property of Positive Definite Matrices." *Journal of Probability and Statistical Science*, 3, 135-138.
87. Lee, J., Khuri, A. I., and Kim, K. W. (2005). "Modeling the Coverage Probability of a Confidence Interval on the Among-Group Variance Component in the Unbalanced Random One-Way Model." *Computational Statistics*, 20, 275-294.

88. Khuri, A. I. (2005). "Slack-Variable Models Versus Scheffé's Mixture Models." *Journal of Applied Statistics*, 32, 887-908.
89. Robinson, T. J., Wulff, S. S., Montgomery, D. C., and Khuri, A. I. (2006). "Robust Parameter Design Using Generalized Linear Mixed Models." *Journal of Quality Technology*, 38, 65-75.
90. Khuri, A. I. and Mukhopadhyay, S. (2006). "GLM Designs: The Dependence on Unknown Parameters Dilemma." In: *Response Surface Methodology and Related Topics*, A. I. Khuri, Ed., Singapore: World Scientific, pp. 203-223.
91. Khuri, A. I. (2006). "Mixed Response Surface Models with Heterogeneous Within-Block Error Variances." *Technometrics*, 48, 206-218.
92. Khuri, A. I., Mukherjee, B., Sinha, B. K., and Ghosh, M. (2006). "Design Issues for Generalized Linear Models: A Review." *Statistical Science*, 21, 376-399.
93. Lee, J., Khuri, A. I., Kim, K. W., and Lee, S. (2007). "On the Size of the F-Test for the One-Way Random Model with Heterogeneous Error Variances." *Journal of Statistical Computation and Simulation*, 77, 443-455.
94. Mukhopadhyay, S. and Khuri, A. I. (2008). "Comparison of Designs for Multivariate Generalized Linear Models." *Journal of Statistical Planning and Inference*, 138, 169-183 [this is the Memphis 2005 Design Conference Special Issue.]
95. Mukhopadhyay, S. and Khuri, A. I. (2007). "Bias in Multivariate Generalized Linear Models." *Calcutta Statistical Association Bulletin*, 59, 87-105.
96. Mukhopadhyay, S. and Khuri, A. I. (2008). "Optimization in a Multivariate Generalized Linear Model Situation." *Computational Statistics and Data Analysis*, 52, 4625-4634.
97. Jung, B. C., Khuri, A. I., and Lee, J. (2008). "Comparison of Designs for the Three-Fold Nested Random Model." *Journal of Applied Statistics*, 35, 701-715.
98. Saha, S. and Khuri, A. I. (2009). "Comparison of Designs for Response Surface Models with Random Block Effects." *Quality Technology and Quantitative Management*, 6, 219-234 (an invited paper in a special issue of the journal on response surface methodology).
99. Mukhopadhyay, S. and Khuri, A. I. (2008). "A New Graphical Approach for Comparing Response Surface Designs on the Basis of the Mean Squared Error of Prediction Criterion." *Statistics and Applications*, 6, 293-324 (an invited paper in a special issue of the journal in honor of Professor Aloke Dey).

100. Khuri, A. I. (2009). Discussion of “Response Surface Design Evaluation and Comparison,” by C. M. Anderson-Cook, C. M. Borror, and D. C. Montgomery. *Journal of Statistical Planning and Inference*, 139, 647-649.

## Articles in Refereed Nonstatistical Journals

1. Tseo, C.L., Deng, J.C., Cornell, J.A., Khuri, A.I., and Schmidt, R.H. (1983). “Effect of Washing Treatment on Quality of Minced Mullet Flesh.” *Journal of Food Science*, 48, 163-167.
2. Ofir, C. and Khuri, A.I. (1986). “Multicollinearity in Marketing Models: Diagnostics and Remedial Measures.” *International Journal of Research in Marketing*, 3, 181-205.
3. Fichtali, J., Van de Voort, F.R., and Khuri, A.I. (1990). “Multiresponse Optimization of Acid Casein Production.” *Journal of Food Process Engineering*, 12, 247-258.
4. Bechtel, G.G., Ofir, C., and Khuri, A.I. (1995). “Replicated Paired Comparisons at the Individual level.” *British Journal of Mathematical and Statistical Psychology*, 48, 115-127.
5. Bechtel, G.G. and Khuri, A.I. (1996). “Saturated Models for Repeated Measures.” *British Journal of Mathematical and Statistical Psychology*, 49, 367-379.
6. Ma, C.X., Casella, G., Littell, R.C., Khuri, A.I., and Wu, R. (2003). “Exponential Mapping of Quantitative Trait Loci Governing Allometric Relationships in Organisms.” *Journal of Mathematical Biology*, 47, 313-324.

## Non-Refereed Publications

1. Khuri, A.I. (1997). “Quantile Dispersion Graphs for ANOVA Estimates of Variance Components.” *Proceedings of the Conference in Honor of Shayle R. Searle*, Biometrics Unit, Cornell University, Ithaca, New York, pp. 161-168.
2. Khuri, A.I. and Valeroso, E.S. (1997). “Multiresponse Surface Models with Fixed or Random Block Effects.” *Proceedings of the International Statistical Institute 51st Session in Istanbul, Turkey*, Book 2, pp. 75-78.
3. Khuri, A.I. (1999). “Discussion” of the paper “Response Surface Methodology- Current Status and Future Directions,” by R.H. Myers. *Journal of Quality Technology*, 31, 58-60.

4. Khuri, A.I. (2001). "Comments" on the paper "Factor Screening and Response Surface Exploration," by S. W. Cheng and C. F. J. Wu. *Statistica Sinica*, 11, 587-589.
5. Khuri, A.I. (2002). "Reply to Comments by Jeff Terpstra." *The American Statistician*, 56, 254-255.
6. Khuri, A. I. and Lee, J. (2003). "Quantile Dispersion Graphs for Comparing Designs for Random ANOVA Models." In: *Proceedings of Graybill Conference on Linear, Nonlinear, and Generalized Linear Models*, 2001, Department of Statistics, Colorado State University, Ft. Collins, Colorado, pp. 227-240.
7. Khuri, A.I. (2006). "Mixed Response Surface Models with Heterogeneous Within-Block Error Variances." In: *Proceedings of the 3<sup>rd</sup> Sino-International Symposium on Probability, Statistics, and Quantitative Management*, June 10, Taipei, Taiwan, pp. 1-8.