

Last revised: October 2009

Bibliography
Systematic Sampling
(139 entries)

1. Anderson, V.O. 1914. Nochmals Uber “The Elimination of Spurious Correlation Due to Position in Time or Space”. *Biometrika* 10(2/3):269-279.
2. Lindeberg, J. W. 1924. Über die Berechnung des Mittelfehlers des Resultates einer Linientaxierung. *Acta Forestalia Fennica* 25:3-22.
3. Anderson, O. 1926. Ueber die Anwendung der Differenzenmethode (“Variate Difference Method”) Bei Reihenaus-Gleichungen, Stabilitätsuntersuchungen und Korrelationsmessungen. *Biometrika* 18(3/4):293-320.
4. Langsæter, A. 1926. Om beregning av middelfeilen ved regelmessige linjetakseringer. (About calculation of standard error for systematic strip survey) *Meddelelser fra Det Norske Skogforsøksvesen*. Hefte 7, 5-43.
5. Lindeberg, J. W. 1926. Zur Theorie der Linientaxierung. *Acta Forestalia Fennica* 31(6):3-9.
6. Langsæter, A. 1927. Om beregning av middelfeilen ved regelmessige linjetakseringer. II. (About calculation of standard error for systematic strip survey. II) *Meddelelser fra Det Norske Skogforsøksvesen*. Hefte 8, 71-89.
7. Hasel, A. A. 1938. Sampling Error in Timber Surveys. *Journal of Agricultural Research* 57(10):713-736.
8. Yates, F. 1939. The comparative advantages of systematic and randomized arrangements in the design of agricultural and biological experiments. *Biometrika* 30(3/4) 440-466.
9. von Neuman, J. 1941. Distribution of the Ratio of the Mean Square Successive Difference to the Variance. *The Annals of Mathematical Statistics* 12(4):367-395.
10. Williams, J.D. 1941. Moments of the Ratio of the Mean Square Successive Difference to the Mean Square Differences in Samples From a Normal Universe. *The Annals of Mathematical Statistics* 12(2):239-241.
11. Hart, B.I. 1942. Significance Levels for the Ratio of the Mean Square Successive Difference to the Variance. *The Annals of Mathematical Statistics* 13(4):445-447.
12. Osborne, J.G. 1942. Sampling Errors of Systematic and Random Surveys of Covertype Areas. *Journal of the American Statistical Association* 37:256-264.
13. von Neumann, J. 1942. A Further Remark Concerning the Distribution of the Ratio of the Mean Square Successive Difference to the Variance. *The Annals of Mathematical Statistics* 13(1):86-88.

14. Johnson, F. A. 1943. A statistical study of sampling methods for tree nursery inventories. *Journal of Forestry* 41:674-679
15. Madow, G.W. and L.H. Madow. 1944. On the Theory of Systematic Sampling, I. *Annals of Math Stats* 25:1-24.
16. Baer, R. 1945. Sampling from a Changing Population. *The Annals of Mathematical Statistics* 16(4):348-361.
17. Madow, L.H. 1946. Systematic sampling and its relation to other sampling designs. *Journal of the American Statistical Association* 41:204-217.
18. Finney, D.J. 1947. Volume Estimation of Standing Timber by Sampling. *Forestry* 21:179-203.
19. Morse, A.P. and F.E. Grubbs. 1947. The Estimation of Dispersion from Differences. *The Annals of Mathematical Statistics* 18(2):194-214.
20. Finney, D.J. 1948. Random and Systematic Sampling in Timber Surveys. *Forestry* 22:64-99.
21. Jones, A.E. 1948. Systematic Sampling of Continuous Parameter Populations. *Biometrika* 35:283-290.
22. Kendall, M.G. 1948. Continuation of Dr Jones's Paper. *Biometrika* 35:291-296.
23. Yates, F. 1948. Systematic Sampling. *Philosophical Transaction of the Royal Society of London* 241(A):345-377.
24. Finney, D.J. 1949. An Example of Periodic Variation in Forest Sampling. *Forestry* 23:96-111.
25. Madow, W.G. 1949. On the Theory of Systematic Sampling, II. *Annals of Math Stat.* 20:333-354.
26. Quenouille, M.H. 1949. Problems in Plane Sampling. *Annals Math Stat.* 20:355-375.
27. Bose, R.C. 1950. On a Problem of Two Dimensional Probability. *Sankhya: The Indian Journal of Statistics, Series A* 10:13-27.
28. Das, A.C. 1950. Two Dimensional Systematic Sampling and the Associated Stratified and Random Sampling. *Sankhya: The Indian Journal of Statistics, Series A* 10:95-108.
29. Guest, P.G. 1951. The Estimation of Standard Error From Successive Finite Differences. *Journal of the Royal Statistical Society. Series B (Methodological)* 13(2):233-237.

30. Jowett, G.H. 1952. The Accuracy of Systematic Sampling from Conveyor Belts. *Applied Statistics* 10(1):50-59.
31. Finney, D.J. 1953. The Estimation of Error in the Systematic Sampling of Forests. *Journal of the Indian Society of Agricultural Statistics* 5:6-16.
32. Madow, W.G. 1953. On the Theory of Systematic Sampling, III. Comparison of Centered and Random Start Systematic Sampling. *Annals of Mathematical Statistics* 24:101-113.
33. Kamat, A. R. 1955. M modified mean square successive difference with an exact distribution. *Sankhya* 15(3) 295-302.
34. Moore, P.G. 1955. The Properties of the Mean Square Successive Difference in Samples from Various Populations. *Journal of the American Statistical Association* 50(270):434-456.
35. Geisser, S. 1956. The modified mean square successive difference and related statistics. *Annals of Mathematical Statistics* 27(3) 819-824.
36. Meyer, H.A. 1956. The Calculation of the Sampling Error of a Cruise from the Mean Square Successive Difference. *J. Forestry* 54:341.
37. Williams, R.M. 1956. The Variance of the Mean of Systematic Samples. *Biometrika* 43:137-148.
38. Gautschi, W. 1957. Some Remarks on Systematic Sampling. *Annals of Math Stat.* 28:385-394.
39. Zubrzycki, S. 1958. Remarks on Random, Stratified and Systematic Sampling in a Plane. *Colloquium Mathematicum* 6:251-264.
40. Milne, A. 1959. The Centric Systematic Area-Sample Treated as a Random Sample. *Biometrics* 15:270-297.
41. Rao, J.N.K. 1959. A note on Mean Square Successive Differences. *American Statistical Association Journal* December 801-806.
42. Matérn, B. 1960. Spatial Variation: Stochastic models and their application to some problems in forest surveys and other sampling investigations. *Meddelanden från Statens Skogsforskningsinstitut*, Band 49, Nr 5. 144p.
43. Shiue, C.J. 1960. Systematic Sampling With Multiple Random Starts. *Forest Science* 6(1): 42-50.
44. Dalenius, T., J. Hájek, and S. Zubrzycki. 1961. On plane sampling and related geometrical problems. *Proceedings of the Fourth Berkeley Symposium on Mathematical Statistics and*

- Probability, Volume I. University of California, 20 June-30 July 1960. pp. 125-150.
45. Berry, B.J.L. 1962. Sampling, Coding, and Storing Flood Plain Data. USDA Handbook No. 237. Pages 1-27.
46. Freese, F. 1962. Systematic Sampling. *Elementary Forest Sampling*.
47. Hannan, E.J. 1962. Systematic Sampling. *Biometrika* 49:281-283.
48. Hartley, H.O. and J.N.K. Rao. 1962. Sampling with Unequal Probabilities and without Replacement. *Annals of Mathematical Statistics* 33(2):350-374.
49. Brewer, K.R.W. 1963. A Model of Systematic Sampling with Unequal Probabilities. *Australian Journal of Statistics* 5:5-13.
50. Törnqvist, L. 1963. The Theory of Replaced Systematic Cluster Sampling with Random Start. *Review of the International Statistical Institute* 31:11-23.
51. Raj, D. 1964. The Use of Systematic Sampling with Probability Proportionate to Size in a Large Scale Survey. *American Statistical Association Journal* 59:251-255.
52. Vos, J. W. E. 1964. Sampling in Space and Time. *Review of the International Statistical Institute* 32(3) 226-241.
53. Zinger, A. 1964. Systematic Sampling in Forestry. *Biometrics*, September: 553-565.
54. Raj, D. 1965. Variance Estimation in Randomized Systematic Sampling with Probability Proportional to Size. *American Statistical Association Journal* 60:278-284.
55. Hartley, H.O. 1966. Systematic Sampling with Unequal Probability and without Replacement. *American Statistical Association Journal* 61:739-748.
56. Nyyssönen, A., P. Kilkki, and E. Mikkola. 1967. On the precision of some methods of forest inventory. *Acta Forestalia Fennica* 81:5-58.
57. Singh, D., K.K. Jindal, and J.N. Garg. 1968. On modified systematic sampling. *Biometrika* 55(3):541-546.
58. Sedransk, J. 1969. Some Elementary Properties of Systematic Sampling. *Skand. Aktuar Tidskr* 52:39-47.
59. Holmes, J.H. 1970. The Theory of Plane Sampling and Its Applications in Geographic Research. *Economic Geography* 46:379-392.
60. Payandeh, B. 1970. Relative Efficiency of Two-Dimensional Systematic Sampling. *Forest Science* 16(3):271-276.

61. Nyysönen, A., P. Roika_Jokel, and P. Kilkki. 1971. Studies on improvement of the efficiency of systematic sampling in forest inventory. *Acta Forestalia Fennica* 116:3-25.
62. Stage, A.R. 1971. Sampling with Probability Proportional to Size from a Sorted List. USDA Forest Service Research Paper INT-88.
63. Overton, W.S., D.P. Lavender and R.K. Herman. 1973. Estimation of Biomass and Nutrient Capital in Stands of Old-Growth Douglas-Fir. IUFRO Biomass Studies. International Union of Forest Research Organizations. S4.01 Mensuration, Growth and Yield. 89-103.
64. Bell, J.F. 1974. Sampling with Unequal Probabilities to Estimate Cubic-foot Volume Growth on Permanent Sample Plots. *Mitteilungen der Forstlichen Bundesversuchsanstalt. Wien* 105(2):71-80.
65. Bellhouse, D.R. and J.N.K. Rao. 1975. Systematic sampling in the presence of a trend. *Biometrika* 62(3):694-697.
66. Hidirogloou, M.A. and G.B. Gray. 1975. A Computer Algorithm for Joint Probabilities of Selection. *Survey Methodology (Statistics Canada)* 1:99-108.
67. Mangold, D.C. 1975. A New Formula for the Variance of a Systematic Sample Mean Using Serial Correlations. *The American Statistician* 29(3):114-115.
68. Bellhouse, D.R. 1977. Some optimal deigns for sampling in two dimensions. *Biometrika* 64(3):605-611.
69. Bonner, G.M. 1977. An Evaluation of Systematic Sampling in Malaysian Forest Inventories. *The Malaysian Forester* 40(4):184-191.
70. Isaki, C.T. and S.J. Pinciaro. 1977. Numerical Comparison of Some Estimators of Variance Under PPS Systematic Sampling. American Statistical Association Proceeding of the Social Statistics Section Part 1. Pages 308-313.
71. Singh, D. and P. Singh. 1977. New Systematic Sampling. *Journal of Statistical Planning and Inference* 1:163-177.
72. Heilbron, D.C. 1978. Comparison of estimators of the variance of systematic sampling. *Biometrika* 65(2):429-433.
73. Sudakar, K. 1978. A Note on “Circular Systematic Sampling Design”. *Sankhyā: The Indian Journal of Statistics* 40(C1):72-73.
74. Martin, R.J. 1979. A subclass of lattice processes applied to a problem in planar sampling. *Biometrika* 66(2):209-217.

75. Iachan, R. 1980. The Weight Scaling Problem – Systematic Sampling from a Population of Truckloads of Trees. University of Wisconsin-Madison Technical Report No. 626.
76. Zinger, A. 1980. Variance Estimation in Partially Systematic Sampling. *Journal of the American Statistical Association* 75(369):206-211.
77. Iachan, R. 1981. An Asymptotic Theory of Systematic Sampling. University of Wisconsin-Madison Technical Report No. 632. Pages:19.
78. Iachan, R. 1981. An Asymptotic Comparison Between Systematic Sampling and Simple Sampling. University of Wisconsin-Madison Technical Report No. 635. Pages:9.
79. Wu, C. 1981. Estimation in Systematic Sampling with Supplementary Observations. University of Wisconsin-Madison Technical Report No. 644. Pages:15.
80. Yates, F. 1981, Systematic Sampling (Section 7.18) *Sampling Methods for Censuses and Surveys*. Charles Griffin & Company Ltd., London.
81. Ayeni, O.O. 1982. Optimum Sampling for Digital Terrain Models: A Trend Toward Automation. *Photogrammetric Engineering & Remote Sensing* 48(11):1687-1694.
82. Iachan, R. 1982. Systematic Sampling: A Critical Review. *International Statistical Review* 50:293-303.
83. Iachan, R. 1983. Nonvalidity of a Counter Example of Hajek. *The American Statistician* 37(1):96.
84. Bellhouse, D.R. 1984. On The Choice of the Sampling Interval in Circular Systematic Sampling. *Sankhyā* 46(2):247-248.
85. Bellhouse, D.R. 1984. Optimal randomization for experiments in which autocorrelation is present. *Biometrika* 71:155-160.
86. Wolter, K.W. 1984. An Investigation of Some Estimates of Variance for Systematic Sampling. *Journal of the American Statistical Association* 79:781-790.
87. Wu, C.F.J. 1984. Estimation in Systematic Sampling with Supplementary Observations. *Sankhyā: The Indian Journal of Statistics* 46:306-315.
88. Wolter, K.M. 1985. Introduction to Variance Estimation. Springer-Verlag. 427 pages.
89. Kott, P.S. 1986. Some asymptotic results for the systematic and stratified sampling of a finite population. *Biometrika* 73:485-491.
90. Matérn, B. 1986. Spatial Variation (2nd ed.). Lecture Notes in Statistics, No. 36. Springer-Verlag, Berlin. 151 p.

91. Bennett, B.M. 1987. Notes on Systematic Sampling. *Biom. J.* 2:239-242.
92. Chaudhuri, A. and A.K. Adhikary. 1987. Circular Systematic Sampling with Varying Probabilities. *Calcutta Statistical Associated Bulletin* 36:143-144.
93. Gilbert, R. O. 1987. Systematic Sampling (Chapter 8) *Statistical Methods for Environmental Pollution Monitoring*. Van Nostrand Reinhold Company: New York.
94. Gundersen, H. J. G. & E. B. Jensen. 1987. The efficiency of systematic sampling in stereology and its prediction. *Journal of Microscopy* 147(3) 229-263.
95. Congalton, R.G. 1988. A Comparison of Sampling Schemes Used in Generating Error Matrices for Assessing the Accuracy of Maps Generated for Remotely Sensed Data. *Photogrammetric Engineering and Remote Sensing* 54(5):593-600.
96. Murthy, M.N. and T.J. Rao. 1988. Systematic Sampling with Illustrative Examples. *Handbook of Statistics* 6:147-185.
97. Sengupta, S. 1988. A Note on PPS Circular Systematic Sampling. *Calcutta Statistical Associated Bulletin* 37:145-146.
98. Bellhouse, D.R. 1988. Systematic Sampling. *Handbook of Statistics* 6:125-145.
99. Bellhouse, D.R. and B.C. Sutradhar. 1988. Variance estimation for systematic sampling when autocorrelation is present. *The Statistician* 37:327-332.
100. Cheng, R.C. and T. Davenport. 1989. The Problem of Dimensionality in Stratified Sampling. *Management Science* 35(11):1279-1296.
101. Cruz-Orive, L.M. 1989. On the precision of systematic sampling: a review of Matheron's transitive methods. *Journal of Microscopy* 153(3):315-333.
102. Kellerer, A.M. 1989. Exact formulae for the precision of systematic sampling. *Journal of Microscopy* 153(3):285-300.
103. Kuk, A.C. 1989. Double Bootstrap Estimation of Variance Under Systematic Sampling with Probability Proportional to Size. *J. Statist. Comput. Simul.* 31:73-82.
104. Mattfeldt, T. 1989. The accuracy of one-dimensional systematic sampling. *Journal of Microscopy* 153(3):301-313.
105. Stehman, S.V. and W.S. Overton. 1989. An Empirical, General Population Assessment of the Properties of Variance Estimators of the Horvitz-Thompson Estimator under Random-Order, Variable Probability Systematic Sampling. Oregon State University, Technical Report 132. 71 pages.

106. Stehman, S.V. and W.S. Overton. 1989. Pairwise Inclusion Probability Formulas in Random-order, Variable Probability, Systematic Sampling. Oregon State University, Technical Report 131. 28 pages.
107. Stehman, S.V. and W.S. Overton. 1989. Variance Estimation for Fixed-Configuration, Systematic Sampling. Oregon State University, Technical Report 134. 47 pages.
108. Deshpande, M.N. 1990. On Systematic Sampling. *Journal of the Indian Statistical Association* 28:51-52.
109. Koop, K.C. 1990. Systematic Sampling of Two-Dimensional Surfaces and Related Problems. *Commun. Statist.-Theory Meth.* 19(5):1702-1750.
110. Mukerjee, R. and S. Sengupta. 1990. Optimal estimate of a finite population mean in the presence of linear trend. *Biometrika* 77(3):625-630.
111. Kushwha, K.S. 1990. An Alternative to Ratio Type Estimators in Systematic Sampling. *Journal of the Indian Statistical Association* 28:55-67.
112. Valliant, R. 1990. Comparisons of Variance Estimators in Stratified Random and Systematic Sampling. *Journal of Official Statistics* 6(2):115-131.
113. Stehman, S.V. 1992. Comparison of Systematic and Random Sampling for Estimating the Accuracy of Maps Generated from Remotely Sensed Data. *Photogrammetric Engineering & Remote Sensing* 58(9):1343-1350.
114. Collins, F. 1992. Literature Review of Two Dimensional Sampling Methods. Student Paper.
115. Borkowski, J.J. and P.L. Munholland. 1993. Monts Proposal: Simple Latin Square Sampling + 1: A Spatial Design Using Quadrats. Montana State University Department of Mathematical Science Technical Report.
116. Borkowski, J.J. and P.L. Munholland. 1993. Monts Proposal: Varying the Sample Size of Simple Latin Square Sampling + 1 Designs.
117. Dunn, R. and A.R. Harrison. 1993. Two-dimensional Systematic Sampling of Land Use. *Appl. Statist.* 42(4):585-601.
118. Kangas, A. 1993. A Model Based Method for Estimating the Parameters of Systematic Cluster Sampling. The Finnish Forest Research Institute. Research Papers 444:216-222.
119. Kangas, A. 1993. Estimation the Parameters of Systematic Cluster Sampling by Model Based Inference. *Scand. J. For. Res.* 8:571-582.

120. Overton, S.W. and S.V. Stehman. 1993. Properties of Designs for Sampling Continuous Spatial Resources from a Triangular Grid. *Commun. Statist.-Theory Meth.* 22(9):2641-2660.
121. Shortt, J. 1993. Advanced Forest Inventory Midterm Project - Circular Systematic Sampling. Student paper.
122. Stehman, S. 1993. Personal Letter.
123. Kangas, A. 1994. Classical and model based estimators for forest inventory. *Silva Fennica* 28(1):3-14.
124. Stehman, S.V. and W.S. Overton. 1994. Comparison of Variance Estimators of the Horvitz-Thompson Estimator for Randomized Variable Probability Systematic Sampling. *Journal of the American Statistical Association* 89(425):30-43.
125. Breidt, F.J. 1995. Markov Chain Designs for One-Per-Stratum Sampling. *Survey Methodology* 21(1):63-70.
126. Burke, J. and K. Rust. 1995. On the Performance of Jackknife Variance Estimation for Systematic Samples with Small Numbers of Primary Sampling Units. Westat Inc.
127. Gundersen, H.J.G., E.B.V. Jensen, K. Ki  , and J. Nielsen. 1999. The efficiency of systematic sampling in stereology – reconsidered. *Journal of Microscopy* 193(3):199-211.
128. Ki  , K., S. Souchet, & J. Istas. 1999. Precision of systematic and transitive methods. *Journal of Statistical Inference and Planning*. 77: 263-279.
129. Iles, K. 2000. Sampling from a List: A Big Improvement. *Journal of Forestry*.
130. See, K., J. Stufken, S.Y. Song and A.J. Bailer. 2000. Relative Efficiencies of Sampling Plans for Selecting a Small Number of Units from a Rectangular Region. *Journal Statistical Computation & Simulation* 66:273-294.
131. Berger, Y. G. (2003). A modified H  jek variance estimator for systematic sampling. *Statistics in Transition* 6(1) 5-21.
132. D'Orazio, M. 2003. Estimation the Variance of the Sample Mean in Two-Dimensional Systematic Sampling. *Journal of Agriculture, Biological, and Environmental Statistics* 8(3):280-295.
133. Bartolucci, F. and G. E. Montanari. 2006. A new class of unbiased estimators of the variance of the systematic sample mean. *Journal of Statistical Planning and Inference* 136: 1512-1525.
134. Heikkinen, J. 2007. Assessment of uncertainty in spatially systematic sampling. MARV4/1

- Metsävarojen inventointi- kurssin Iuento, 14 March 2007.
135. Corona, P. and L. Fattorini. 2008. Area-based lidar-assisted estimation of forest standing volume. *Canadian Journal of Forest Research* 38: 2911-2916.
136. Thompson, M. E. & C. Wu. 2008. Simulation-based rerandomized systematic PPS sampling under substitution of units. *Survey Methodology* 34(1) 3-10.
137. Zhang, L-C. 2008. On some common practices of systematic sampling. *Journal of Official Statistics* 24(4) 557-569.
138. Barabesi, L. and M. Marcheselli. 2009? Monte Carlo integration of Soboloev functions under systematic sampling. In press???
139. Valentine, H. T., Affleck, D. L. R. and Gregoire, T. G. 2009. Systematic sampling of discrete and continuous populations: Sample selection and the choice of estimator. *Canadian Journal of Forest Research* 39: 1061-1086.