References

1. Berger, J. O. (1985). *Statistical Decision Theory and Bayesian Analysis.* Springer-Verlag, New York.

2. Bernardo, J. M. and Smith, A. F. M. (1993). *Bayesian Theory.* John Wiley & Sons, New York.

3. Bissell, A. F. (1990). How reliable is your capability indices? *Journal of the Royal Statistical Society C*, 39(3), 331-340.

4. Bothe, D. R. (1997). *Measuring Process Capability.* McGraw-Hill, New York.

5. Bothe, D. R. (1999). A capability index for multiple process streams. *Quality Engineering*, 11(4), 613-618.

6. Box, G. E. P. and Tiao, G. C. (1992). *Bayesian Inference in Statistical Analysis.* John Wiley & Sons, New York.

7. Boyles, R. A. (1991). The Taguchi capability index. *Journal of Quality Technology*, 23, 17-26.

8. Boyles, R. A. (1996). Multivariate process analysis with lattice data. *Technometrics*, 38(1), 37-49.

9. Castagliola, P. (1996). Evaluation of non-normal process capability indices using Burr's distributions. *Quality Engineering*, 8, 587–593.

10. Chan, L. K., Cheng, S. W. and Spiring, F. A. (1988). A new measure of process capability C_{pm}. *Journal of Quality Technology*, 20(3), 162-175.

11. Chang, Y. S., Choi, I. S. and Bai, D. S. (2002). Process capability indices for skewed populations. *Quality & Reliability Engineering International*, 18, 383-393.

12. Chen, H. (1994). A multivariate process capability index over a rectangular solid tolerance zone. *Statistica Sinica*, 4, 749-758.

13. Chen, S. M. and Hsu, N. F. (1995). The asymptotic distribution of the process capability index C_{pmk}. *Communications in Statistics: Theory & Methods*, 24, 1279–1291.

14. Chen, K. S., Huang, M. L. and Li, R. K. (2001). Process capability analysis for an entire product. *International Journal of Production Research*, 39(17), 4077-4087.

15. Chen, K. S. and Pearn, W. L. (1997). An application of non-normal process capability indices. *Quality & Reliability Engineering International*, 13, 355-360.

16. Chen, J. P. and Pearn, W. L. (2002). Testing process performance based on the yield-an application to the liquid-crystal display module. *Microelectronics Reliability*, 42, 1235-1241.

17. Cheng, S. W. and Spiring, F. A. (1989). Assessing process capability: A Bayesian approach. *IIE Transactions*, 21 (1), 97-98.

18. Choi, B. C. and Owen, D. B. (1990). A study of a new capability index. *Communications in Statistics: Theory & Methods*, 19, 1231-1245.

19. Chou, Y. M. and Owen, D. B. (1989). On the distributions of the estimated process capability indices. *Communications in Statistics: Theory & Methods*, 18, 4549-4560.

20. Chou, Y. M., Owen, D. B. and Borrego, A. S. (1990). Lower confidence limits on process capability indices. *Journal of Quality Technology*, 22, 223-229.

21. Chou. Y. M. (1994). Selecting a better supplier by testing process capability indices. *Quality Engineering*, 6(3), 427-438.

22. Clements, J. A. (1989). Process capability calculations for non-normal distributions. *Quality Progress*, 22(9), 95–100.

23. Cryer, J. D. and Ryan, T. P. (1990). The estimation of sigma for an X chart: $\overline{MR}/d_2$ or S/c_4? *Journal of Quality Technology*, 22, 187-192.

24. Deleryd, M. (1996), Process capability indices in theory and practices, *Licentiate Thesis*, Division of Quality Technology and Statistics, Luleå University of Technology.

25. English, J. R. and Taylor, G. D. (1993). Process capability analysis - a robustness study. *International Journal of Production Research*, 31, 1621-1635.

26. Finley, J. C. (1992). What is capability? Or what is C_p and C_{pk}. *ASQC Quality Congress Transactions,* Nashville, 186-191.

27. Franklin, L. A. and Wasserman, G. S. (1992a). A note on the conservative nature of the tables of lower confidence limits for C_{pk} with a suggested correction. *Communications in Statistics: Simulation & Computation,* 21(4), 1165-1169.

28. Franklin, L. A. and Wasserman, G. S. (1992b). Bootstrap lower confidence limits for capability indices. *Journal of Quality Technology*, 24(4), 196-210.

29. Franklin, L. A. (1999). Sample size determination for lower confidence limits for estimating process capability indices. *Computers & Industrial Engineering*, 36(3), 603-614.

30. Harry, M. J. (1988). *The Nature of Six-Sigma Quality*. Motorola Inc., Schaumburg, Illinois.

31. Hoffman, L. L. (2001). Obtaining confidence intervals for C_{pk} using percentiles of the distribution of C_p. *Quality & Reliability Engineering International*, 17(2), 113-118.

32. Hoskins, J., Stuart, B. and Taylor, J. (1988). *A Motorola Commitment: A Six-Sigma Mandate*. The Motorola Guide, to Statistical Process Control for Continuous Improvement Towards Six-Sigma Quality.

33. Hsiang, T. C. and Taguchi, G. (1985). A tutorial on quality control and assurance - the Taguchi methods. *ASA Annual Meeting*, Las Vegas, Nevada, U.S.A.

34. Hubele, N. F., Montgomery, D. C. and Chih. W. H. (1991). An application of statistical process control in jet-turbine engine component manufacturing. *Quality Engineering*, 4(2), 197-210.

35. Hubele, N. F. and Vännman, K. (2004). The effect of pooled and un-pooled variance estimators on C_{pm} when using subsamples, *Journal of Quality Technology*, 36(2), 207-222.

36. Jessenberger, J. and Weihs, C. (2000). A note on the behavior of C_{pmk} with asymmetric specification limits. *Journal of Quality Technology*, 32(4), 440-443.

37. Johnson, N. L., Kotz, S. and Pearn, W. L. (1994). Flexible process capability indices. *Pakistan Journal of Statistics*, 10(1), 23–31.

38. Juran, J.M. (1974). *Quality Control Handbook* (3rd Edition), McGraw-Hill, New York.

39. Kalos, M. H. and Whitlock, P. A. (1986). *Monte Carlo Methods*. John Wiley & Sons, New York.

40. Kane, V. E. (1986). Process capability indices. *Journal of Quality Technology*, 18(1), 41-52.

41. Kass, R. and Wasserman, L. (1996). The selection of prior distributions by formal rules. *Journal of the American Statistical Association*, 91(435), 1343-1370.

42. Kirmani, S. N. U. A., Kocherlakota, K. and Kocherlakota, S. (1991). Estimation of σ and the process capability index based on subsamples. *Communications in Statistics: Theory & Methods*, 20, 275-291.

43. Kotz, S. and Johnson, N. L. (1993). *Process Capability Indices*. Chapman & Hall, London, U.K.

44. Kotz, S. and Johnson, N. L. (2002). Process capability indices – a review, 1992-2000. *Journal of Quality Technology,* 34(1), 1-19.

45. Kotz, S. and Lovelace, C. (1998). *Process Capability Indices in Theory and Practice.* Arnold, London, U.K.

46. Kotz, S., Pearn, W. L. and Johnson, N. L. (1993). Some process capability indices are more reliable than one might think. *Journal of the Royal Statistical Society C*, 42(1), 55-62.

47. Kushler, R. and Hurley, P. (1992). Confidence bounds for capability indices. *Journal of Quality Technology*, 24, 188-195.

48. Leone, F. C., Nelson, L. S. and Nottingham, R. B. (1961). The folded normal distribution. *Technometrics*, 3, 543-550.

49. Li, H., Owen, D. B. and Borrego A, S. A. (1990). Lower confidence limits on process capability indices based on the range. *Communications in Statistics: Simulation & Computation*, 19(1), 1-24.

50. Lyth, D. M. and Rabiej, R. J. (1995). Critical variables in wood manufacturing process capability: species, structure, and moisture content. *Quality Engineering*, 8(2), 275-281.

51. McCoy, P. F. (1991). Using performance indexes to monitor production processes. *Quality Progress,* February, 49-55.

52. Montgomery, D. C. (1996). *Introduction to Statistical Quality Control* (3rd Edition), John Wiley & Sons, New York.

53. Montgomery, D. C. (2001). *Introduction to Statistical Quality Control* (4th Edition), John Wiley & Sons, New York.

54. Nagata, Y. and Nagahata, H. (1994). Approximation formulas for the lower confidence limits of process capability indices. *Okayama Economic Review*, 25, 301-314.

55. Noguera, J. and Nielsen, T. (1992). Implementing six sigma for interconnect technology. *ASQC Quality Congress Transactions*, Nashville, 538-544.

56. Palmer, K. and Tsui, K. L. (1999). A review and interpretations of process capability indices. *Annals of Operations Research*, 87, 31-47.

57. Parlar, M. and Wesolowsky, G. O. (1999). Specification limits, capability indices and centering in assembly manufacture. *Journal of Quality Technology*, 31(3), 317-325.

58. Pearn, W. L. and Chang, C. S. (1998). An implementation of the precision index for contaminated processes. *Quality Engineering*, 11(1), 101-110.

59. Pearn, W. L. and Chen. K. S. (1997a). Capability indices for non-normal distributions with an application in electrolytic capacitor manufacturing. *Microelectronics Reliability*, 37(12), 1853-1858.

60. Pearn, W. L. and Chen, K. S. (1997b). Multiprocess performance analysis: a case study, *Quality Engineering*, 10(1), 1-8.

61. Pearn, W. L. and Chen, K. S. (2002). One-sided capability indices C_{PU} and C_{PL}: decision making with sample information. *International Journal of Quality & Reliability Management*, 19(2), 221-245.

62. Pearn, W. L., Chen, K. S. and Lin, P. C. (1999). The probability density function of the estimated process capability index C_{pk}. *Far East Journal of Theoretical Statistics*, 3(1), 67-80.

63. Pearn, W. L. and Kotz, S. (1994-95). Application of Clements' method for calculation second and third generation process capability indices for non-normal Pearsonian populations. *Quality Engineering*, 7(1), 139-145.

64. Pearn, W. L., Kotz, S. and Johnson, N. L. (1992). Distributional and inferential properties of process capability indices. *Journal of Quality Technology*, 24(4), 216-231.

65. Pearn, W. L., Lin, G. H. and Chen, K. S. (1998). Distributional and inferential properties of process accuracy and process precision indices. *Communications in Statistics: Theory & Methods*, 27(4), 985-1000.

66. Pearn, W. L. and Lin, P. C. (2002). Computer program for calculating the *p*-values in testing process capability C_{pmk}. *Quality & Reliability Engineering International*, 18(4), 333-342.

67. Pearn, W. L. and Lin, P. C. (2003). Testing process performance based on the capability index C_{pk} with critical values. *Computers & Industrial Engineering*. To appear.

68. Pearn, W. L. and Shu, M. H. (2003a). Manufacturing capability control for multiple power distribution switch processes based on modified C_{pk} MPPAC. *Microelectronics Reliability*, 43(6), 963-975.

69. Pearn, W. L. and Shu, M. H. (2003b). Lower confidence bounds with sample size information for C_{pm} with application to production yield assurance. *International Journal of Production Research*, 41(15), 3581-3599.

70. Pearn, W. L. and Shu, M. H. (2004). Measuring manufacturing capability based on lower confidence bounds of C_{pmk} applied to current transmitter process. *International Journal of Advanced Manufacturing Technology*, 23, 116-125.

71. Pearn, W. L. and Yang, Y. S. (2003). Distributional and inferential Properties of the estimated precision C_p based on multiple samples. *Quality & Quantity,* 37, 443-453.

72. Rado, L. G. (1989). Enhance product development by using capability indexes. *Quality Progress,* April, 22(4), 38-41.

73. Rodriguez, R (1992). Recent developments in process capability analysis. *Journal of Quality Technology*, 24(4), 176-187.

74. Ruczinski, I. (1996). The relation between C_{pm} and the degree of includence, *Doctoral Dissertation*, University of Würzberg, Würzberg, Germany.

75. Shiau, J. H., Chiang, C. T. and Hung, H. N. (1999a). A Bayesian procedure for process capability assessment. *Quality & Reliability Engineering International*, 15,

369-378.

76. Shiau, J. H., Hung, H. N. and Chiang, C. T. (1999b). A note on Bayesian estimation of process capability indices. *Statistics & probability Letters*, 45, 215-224.

77. Shore, H. (1998). A new approach to analysing non-normal quality data with application to process capability analysis. *International Journal of Production Research*, 36, 1917–1933.

78. Singhal, S. C. (1990). A new chart for analyzing multiprocess performance. *Quality Engineering*, 2(4), 379-390.

79. Singhal, S. C. (1991). Multiprocess performance analysis chart (MPPAC) with capability zones. *Quality Engineering*, 4(1), 75-81.

80. Spiring, F. A. (1989). An application of C_{pm} to the tool-wear problem. *ASQC Quality Congress Transactions*, Toronto, 123-128.

81. Spiring, F. A. (1991). Assessing process capability in the presence of systematic assignable cause. *Journal of Quality Technology*, 23(2), 125-34.

82. Spiring, F. A. (1997). A unifying approach to process capability indices. *Journal of Quality Technology,* 29(1), 49-58.

83. Spiring, F. A., Leung, B., Cheng, S. W. and Yeung, A. (2003). A bibliography of process capability papers. *Quality & Reliability Engineering International*, 19(5), 445-460.

84. Somerville, S. E. and Montgomery, D. C. (1996–97). Process capability indices and non-normal distributions. *Quality Engineering*, 9, 305–316.

85. Subbaiah, P. and Taam, W. (1993). Inference on the capability index: C_{pm}. *Communications in Statistics: Theory & Methods*, 22, 537–560.

86. Sullivan, L. P. (1984). Targeting variability - a new approach to quality. *Quality Progress*, 17(7), 15–21.

87. Sullivan, L. P. (1985). Letters. *Quality Progress*, 18(4), 7–8.

88. Tang, L. C., Than, S. E. and Ang, B. W. (1997). A graphical approach to obtaining confidence limits of C_{pk}. *Quality & Reliability Engineering International*, 13, 337-346.

89. Tang, L. C, and Than, S. E. (1999). Computing process capability indices for non-normal data: a review and comparative study. *Quality & Reliability Engineering International*, 15, 339–353.

90. Tseng, S. T. and Wu, T. Y. (1991). Selecting the best manufacturing process. *Journal of Quality Technology*, 23, 53-62.

91. Vännman, K. (1995). A unified approach to capability indices. *Statistica Sinica*, 5, 805-820.

92. Vännman, K. (1997). Distribution and moments in simplified form for a general class of capability indices. *Communications in Statistics: Theory & Methods*, 26, 159-179.

93. Vännman, K. and Kotz, S. (1995). A superstructure of capability indices distributional properties and implications, *Scandinavian Journal of Statistics*, 22, 477-491.

94. Vännman, K. and Hubele, N. F. (2003). Distributional properties of estimated capability indices based on subsamples, *Quality & Reliability Engineering International*, 19(2), 111-128.

95. Wang, F. K. and Chen, J. (1998-99). Capability index using principal component analysis. *Quality Engineering,* 11, 21-27.

96. Wang, F. K. and Du, T. C. T. (2000). Using principal component analysis in process performance for multivariate data. *Omega, The international Journal of Management Science*, 28, 185-194.

97. Wang, F. K., Hubele, N. F., Lawrence, P., Miskulin, J. D. and Shahriari, H. (2000). Comparison of three multivariate process capability indices. *Journal of Quality Technology*, 32(3), 263-275.

98. Wright, P.A. (1995). A process capability index sensitive to skewness. *Journal of Statistical Computation & Simulation*, 52,195–203.

99. Wright, P. A. (1998). The probability density function of process capability index C_{pmk}. *Communications in Statistics: Theory & Methods*, 27(7), 1781-1789.

100. Wright, P. A. (2000). The cumulative distribution of process capability index C_{pm}. *Statistics & Probability Letters*, 47, 249–251.

101. Wu, C. W. and Pearn, W. L. (2003). Measuring manufacturing capability for couplers and wavelength division multiplexers (WDM). *International Journal of Advanced Manufacturing Technology.* To appear.

102. Zhang, N. F., Stenback, G. A. and Wardrop, D. M. (1990). Interval estimation of process capability index C_{pk}. *Communications in Statistics: Theory & Methods,* 19, 4455-4470.

103. Zimmer, L. S. and Hubele, N. F. (1997). Quantiles of the sampling distribution of C_{pm}. *Quality Engineering*, 10, 309-329.

104. Zimmer, L. S., Hubele, N. F. and Zimmer, W. J. (2001). Confidence intervals and sample size determination for C_{pm}. *Quality & Reliability Engineering International,* 17, 51-68.