

## A selection of Charles Lawoko's academic publications and conference presentations

Charles' publications are mainly in the research areas of multivariate statistical analysis and datamining. However, over the years Charles has also donated his time and knowledge in analysis of data leading to advances in the areas of agricultural sciences, and veterinary and human medicine (with some research resulting in publications with scientists in these areas).

- RJ Hudson and C R O Lawoko (2002). Generalised Least Squares (GLS) Estimation of the Difference parameter in long memory (ARFIMA) processes. *Communications in Statistics, Theory and Methods*, 31, 2, 1629-1646.
- SM Fox, DJ Mellor, KJ Stafford, CRO Lawoko, H Hodge (2000). The effects of ovariohysterectomy plus different combinations of halothane, anaesthesia, and butorphanol analgesia on behaviour in a bitch. *Research in Veterinary Sciences*, 68, 265-274.
- ML Chandler, WG Guilford, CRO Lawoko, and T Whittam (1999). Gastric emptying and intestinal transit times of radiopaque markers in cats fed a high-fiber diet with and without low-dose intravenous diazepam. *Veterinary Radiology and Ultrasound*, 40, 1, 3-8.
- J P Koolgaard, S Ganesalingam, CRO Lawoko (1998). Comparison of the regularised discriminant analysis with the standard discrimination methods. *Journal of Computational Statistics*, 13, 3-10.
- CRO Lawoko (1998). Common statistical methods for data mining: an introductory discussion of mathematical basis, usage and pitfalls. *SAS Users Group Conference. Melbourne, Australia, (August 1998)*.
- S M Fox, D J Mellor, C R O Lawoko, H Hodge and EC Firth (1998). Changes in plasma cortisol concentrations in bitches in response to different combinations of halothane and butorphanol with and without ovariohysterectomy. *Research in Veterinary Science*, 65, 2, 125-133.
- CRO Lawoko (1998). Structure-preserving variable selection procedures in data mining. *SAS Users Group Conference. Melbourne, Australia, (August 1998)*.
- SM Fox, H Hodge, DJ Mellor, CRO Lawoko (1997). Pain-induced distress in the canine ovariohysterectomy and its alleviation with perioperative butorphanol. *Presented at the American College of Veterinary Anesthesiologists, October 1997, San Diego, USA*.
- SF Forsyth, WG Guilford, and CRO Lawoko (1997). Endoscopic evaluation of the gastroduodenal mucosa following non-steroidal anti-inflammatory drug administration in the dog. *New Zealand Veterinary Journal*, 44, 179-181.
- SM Fox, DJ Mellor, H Hodge, EC Firth, CRO Lawoko (1997). Effects of different combinations of halothane, butorphanol, and ovariohysterectomy on behaviour in the dog. *Presented at the American College of Veterinary Anesthesiologists, October 1997, San Diego, USA*.
- S Ganesalingam, JP Koolgaard, CRO Lawoko (1997). The use of distance measures for covariance regularisation in discriminant analysis. *Presented at Biometrics 97, the Australasian Biometrics Conference. December, Adelaide, Australia*.
- WG Guilford, CRO Lawoko, and FJ Allan (1997). Accuracy of localizing radiopaque markers by abdominal radiography and correlation between their gastric emptying rate and that of a canned food in dogs. *American Journal of Veterinary Research*, 58, 1359-1363.
- SM Fox, H Hodge, DJ Mellor, CRO Lawoko (1997). Pain-induced distress in the canine ovariohysterectomy and its alleviation with perioperative butorphanol. *Presented at the American College of Veterinary Anesthesiologists, October 1997, San Diego, USA*
- C R O Lawoko (1997). Book Review: *Observational Studies* by PR Rosenbaum. Published by Springer-Verlag, 1995. *The New Zealand Statistician*.

- M .Chandler, G G Guilford and CR O Lawoko (1997). The use of radiopaque markers to determine gastric emptying and small intestinal transit time in cats. *Journal of Veterinary Internal Medicine*.
- SA Bissett, WG Guilford, CRO Lawoko and GD Sunvold(1997). Effect of food particle size on carbohydrate assimilation assessed by breath hydrogen testing in dogs. *Veterinary Clinical Nutrition*, 4(3), 82-88.
- M L Chandler, WG Guilford, CRO Lawoko(1996) .Comparison of continuous versus intermittent enteral feeding in dogs. *Journal of Veterinary Internal Medicine*, 10(3), 133-138.
- K J Stafford, D M West J Vermut N Petrie C R O Lawoko (1996). Electrojaculation in rams: a distressing experience? .*New Zealand Journal of Veterinary Science*, 44, 95-98.
- JP Koolgaard, CRO Lawoko, S Ganesalingam (1996). Regularised discriminant analysis involving Bhattacharya distance measure. *8th Australasian Remote Sensing Conference, Canberra, Australia, March 1996*.
- JP Koolgaard and CRO Lawoko (1996). Applications of regularised discriminant(classification) functions in the classification of objects: a discussion of potential application to remote sensing. *8th Australasian Remote Sensing Conference, Canberra, Australia, March 1996*.
- C R O Lawoko and J Sleigh(1996). Prediction of outcome in sepsis: a discussion and comparison of various statistical techniques. *Faculty of Information and Mathematical Sciences, Massey University, N .Z, Research Publications Series*
- J P Koolgaard and C R O Lawoko( 1996). Linear and Euclidean Discriminant Functions: a comparison via asymptotic expansions and simulation study. *Communications in Statistics- Theory and Methods*, 25( 12), 2989- 3011.
- J P Koolgaard, C R O Lawoko, S Ganesalingam(1996). Regularized discriminant(classification)analysis involving Bhattacharya distance measure. *Proceedings of the 8th Australasian Remote Sensing Conference, Canberra, March 1996.[Volume 2, 35-43]*
- C R O Lawoko and J P Koolgaard( 1996). Applications of regularised discriminant(classification) functions in the classification of objects: a discussion of potential applications to remote sensing. *Proceedings of the 8th Australasian Remote Sensing Conference, Canberra, March 1996, Volume 1, 177 -184*.
- C R O Lawoko( 1996). Book Review: Theory of Statistics by M J Schervish. Published by Springer-Verlag, 1995. *The New Zealand Statistician*, 31(1),43-44.
- CRO Lawoko and DQ Wang (1996). Some results on the estimation of parameters for normally distributed random matrices( co-author DW Wang). *Sydney International Statistical Congress, 1996*.
- S Ganesalingam, CRO Lawoko, JP Koolgaard (1996). Comparison of regularised discriminant analysis with the standard discrimination methods. (With J .P Koolgaard and S Ganesalingam). *Presented at the International Biometrics Conference, Amsterdam, July 1996*.
- D Q Wang and C R O Lawoko(1995). On the convergence and rate of convergence of algorithms in the mover-stayer model. *Journal of Systems Science and Mathematical Sciences*, 8, 46-51.
- D Q Wang and C R O Lawoko(1995). Maximum likelihood estimation of parameters for a general model. *Bulletin of the 50th Session of the International Statistical Institute, Beijing, China, 1995, 1239-1241*.
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- J P Koolgaard and C R O Lawoko(1994)Some results on the error rates of the Euclidean and linear discriminant functions. *Proceedings of the ORSNZ/NZSA Conference, Palmerston North (NZ), August 1994 , pp. 327-332*.
- S Ganesalingam, C R O Lawoko, S Ganeshanandam (1994) Statistical discrimination based on absolute values. *Department of Statistics (Massey University) Pre-Print Series #94/13*.

- D Q Wang and C R O Lawoko ( 1994) Some results on parameter estimation for a specific normally distributed random matrix. *Department of Statistics (Massey University) Pre-Print Series #94/15*.
- S M Fox, D J Mellor, E C Firth., H Hodge, C R O Lawoko (1994) Changes in plasma cortisol concentrations before, during and after analgesia, anaesthesia and anaesthesia plus ovariohysterectomy in bitches. *Research in Veterinary Science (UK)*, 57, 110-118.
- D Q Wang and C R O Lawoko (1994). Estimation of parameters of normally distributed random matrices. *Linear Algebra and Its Applications (Fourth Special Issue on Statistics)*, 120, 199- 208.
- C R O Lawoko and a J McLachlan ( 1994) .Estimation of mixing proportions in the presence of autoregressively correlated training data. *Communications in Statistics-Simulation and Computation*, 23, 591-613.
- WG Guilford, D R Strombeck, O Rogers, O L Frick, C R O Lawoko, (1994). Gastroscopic Food Testing in Dogs. *Journal of Veterinary Internal Medicine*, 8,414-422.
- J G Cruz-Castillo, S Ganeshanandam, B R McKay, G S Lawes, C R O Lawoko, D J Woolly (1994) Applications of canonical discriminant analysis in horticultural research. *Feature article in HortScience, the Journal of the American Society of Horticultural Science*, 29, 1115-1119.
- C Matthew, C R O Lawoko, C J Korte, D Smith. (1994) Application of canonical discriminant analysis, principal component analysis and canonical correlation analysis as tools for analysis of pasture botanical composition. *New Zealand Journal of Agricultural Research*, 37, 509-520.
- J P Koolaard and C R O Lawoko ( 1993). Estimating error rates in discriminant analysis with correlated training observations: a simulated study. *Journal of Statistical Computation and Simulation.*, 48, 81-99.
- C R O Lawoko and J Fu ( 1993). A note on reporting of results which are functions of the Mahalanobis distance, D. *Pattern Recognition*, 26, 989- 990.
- C R O Lawoko and GJ McLachlan (1993). Estimation of mixing proportions in the presence of autoregressively correlated training data: the case of two univariate normal populations. *Centre for Statistics Reports, June 1993, Department of Statistics, University of Queensland, Australia*.
- CRO Lawoko and K Lim (1992). Comparison of the Euclidean and linear discriminant functions (co-author: K. Lim). *International Symposium on Multivariate Analysis and Applications (Hong Kong, March 1992)*.
- DQ Wang and CRO Lawoko (1992). On the maximum likelihood estimation of parameters of a spatial allocation procedure. *International Biometrics Conference, Hamilton (NZ) in December 1992*.
- K A Funnel, B R McKay and C R O Lawoko (1992). Comparative effects of Promalin and GA3 on growth and flowering of Zantedeschia Galaxy. *Acta Horticulturae, 1992 Horticultural Science in the Tropics*, 173-179.
- H DeSilva, K Cooper, and CRO Lawoko (1992). Analysis of growth curves in Kiwifruit with implications for within-season fruit size predictions. *International Biometrics Conference, Hamilton (NZ) December, 1992*.
- S. Ganesalingham, CRO Lawoko, and S Ganeshandam (1992). Statistical discrimination based on absolute values. *International Biometrics Conference in Hamilton (NZ) in December 1992*.
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- CRO Lawoko and GJ McLachlan (1986). Error rates of the Wand Z Statistics when the training observations are dependent. *Pattern Recognition*, 19, 467 -471.
- CRO Lawoko and GJ McLachlan (1985). Discrimination with autocorrelated observations. *Pattern Recognition*, 18, 145-149.
- CRO Lawoko and GJ McLachlan (1983). Some asymptotic results on the effect of autocorrelation on the error rates of the sample linear discriminant function. *Pattern Recognition*, 16, 119-121.
- GJ McLachlan, S Ganesalingam and CRO Lawoko (1982). On the likelihood ratio test for compound distributions for homogeneity of mixing proportions. *Technometrics*, 24, 331-334.