

UNIVERSITY OF SYDNEY

SCHOOL OF MATHEMATICS AND STATISTICS

Statistics Seminar Series - 2002

Friday June 28, 2.00pm., Carslaw Lecture Room 273 (level 2)

## **Multiple Comparisons Between Neighbouring Populations**

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### **Abstract**

In this talk, we present a methodology for multiple comparisons of the mean of one treatment with its neighbour. Under the assumption of normal populations with a common unknown variance, in a balanced design, the joint probability density function required for this kind of multiple comparison statistic is derived and tables are given which allow this new procedure to be easily carried out. We present an example from the Pharmacology literature using a data set giving results on ACAT inhibitory activity in animal diets fed low in cholesterol. The same methodology works for the unbalanced design although the joint probability density function can not be determined.

This talk is based on a joint research with Professors Dunnett and Hoppe at McMaster University.

\*\*\* *Dr. Chen completed his PhD in the School of Mathematics and Statistics, University of Sydney, in 1996. \*\*\**

### **References**

Dunnett, C. W. (1955) A multiple comparison procedure for comparing several treatments with a control. *Journal of the American Statistical Association*, **50** 1096-1121.

Hoppe F. M.(Ed.) (1993) *Multiple Comparisons, Selection and Applications in Biometry*, Marcel Dekker, New York.

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