

McMASTER UNIVERSITY
GRADUATE PROGRAM IN STATISTICS

STATISTICS SEMINAR

- Speaker:** D. A. S. Fraser
Department of Statistics
University of Toronto
- Title:** Bayes Posterior Probabilities are just Confidence
and Inconveniently need some Linearity
- Day:** Tuesday, April 1, 2008
- Time:** 2:30 - 3:30 PM
Note the change in time due to the Britton Lectures at 3:30
- Place:** HH/207 **Note the change of room number**

SUMMARY

The posterior probabilities proposed by Bayes are currently widely promoted; and they use only observed likelihood. Meanwhile, frequentists quietly ignore the likelihood function, save for minor technical calculations. Why is there such an extreme split in a front-line discipline? Asymptotics indicate the point of divergence. If there is a suitable linearity then Bayesians and frequentists agree and there is no divergence. Otherwise, the differences can be hidden and of any order with little warning. We examine these differences and then focus on the Bayesian claim of *probability*. Certainly acting as if something is there when it isn't can make big differences, and it is all aided and abetted by probability joined with current MCMC technology. But it is an old story: linear approximations can be immensely useful, but can also give extraordinarily unreliable answers.

REFERENCES

TBA

ABOUT THE SPEAKER



Don Fraser is Professor Emeritus at the Department of Statistics, University of Toronto. In his long and distinguished career, he has published 5 books and over 230 papers. He has supervised 55 PhD students and is currently supervising two more. Among his many honours have been two honorary doctorates. He was the first person to be awarded the Statistical Society of Canada Gold Medal in 1985 and in 1991 he was named an honorary member of the SSC. He has also received the Gold Medal from the Islamic Statistical Society and is a fellow of many organizations including the Royal Society of Canada.

Don's research has focussed on fundamental issues in statistical inference including topics such as nonparametrics, linear models, likelihood theory and higher order asymptotics. In recent years he has conducted research and given many addresses on the connections and differences between frequentist and Bayesian inferences in an effort to foster a better understanding of both methodologies.

MORE SEMINAR INFORMATION

Please contact Angelo Canty at 905-525-9140 ext. 27079, email: cantya@mcmaster.ca.