

Predictive Fence Methods for Small Area Estimation

Prof. Jiming Jiang
Professor of Statistics
University of California, Davis
USA



Date : 17 September 2009 (Thursday)
Time : 4 pm – 5 pm
Venue: SPMS-Executive Classroom 1, MAS-03-06
School of Physical and Mathematical Sciences

The fence method is a recently developed strategy for model selection. The idea is to construct a statistical fence to isolate a subgroup of what are called correct models. Once the fence is constructed, the optimal model is selected from those within the fence according to a criterion which can incorporate quantities of practical interest. One advantage of the fence is its flexibility in choosing the measure of lack of fit to address problem of practical interest. In this talk, we show how to derive predictive measures of lack-of-fit to address the main interest in small area estimation, which is estimation of small area means. Simulation results show that the predictive measure makes a significant difference compared with the information criteria and non-predictive fence in situations where a true model does not exist among the candidate models.

This is joint work with Thuan Nguyen of Oregon Health and Science University, and Sunil Rao of Case Western Reserve University.

Speaker Biography

Professor Jiming Jiang received his Bachelor of Mathematics and Master of Probability and Statistics from Peking University and PhD in Statistics under Professor Peter J. Bickel from the University of California at Berkeley. He is now a Professor of Statistics at The University of California, Davis. He has wide interests in statistics and has one monograph in the prestigious Springer Series in Statistics (Linear and Generalized Linear Mixed Models and Their Applications, 2007).

Host: Prof. Pang Zhen, Division of Mathematical Sciences, School of Physical and Mathematical Sciences

Queries to: Ms Denise Lim, deniselimrj@ntu.edu.sg, Tel: 6513 7428

SCHOOL OF PHYSICAL AND MATHEMATICAL SCIENCES

NANYANG TECHNOLOGICAL UNIVERSITY
SPMS-MAS-03-01, 21 NANYANG LINK, SINGAPORE 637371
FAX: +65 6515 8213 TEL: +65 6513 7423