

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Professor Weng Kee WONG

Department of Biostatistics
University of California at Los Angeles
U.S.A.

will give a talk

entitled

NATURE-INSPIRED METAHEURISTIC ALGORITHMS FOR GENERATING OPTIMAL EXPERIMENTAL DESIGNS

Abstract

Particle swarm optimization (PSO) is a relatively new, simple and powerful way to search for an optimal solution. It is widely used in many applied fields. The method works quite magically and frequently finds the optimal solution or a nearly optimal solution after a few iterations. There is virtually no assumption required for the method to perform well and the user only needs to input a few easy to work with tuning parameters.

After a brief review of the fundamentals of optimal design of experiments and recent advances in the field, I use several nonlinear regression models to demonstrate that PSO can find different kinds of optimal designs quickly, including mini-max types of optimal designs where effective algorithms to find such designs have remained elusive until now. To promote use of optimal design ideas in practice, I also introduce a website that freely generates a variety of tailor-made optimal designs for popular models in the biological sciences.

on

Thursday, November 24, 2011

3:30 p.m. – 4:30 p.m.

at

**Room 524, Meng Wah Complex
(behind the Chong Yuet Ming Amenities Centre)**

Visitors Please Note that the University has limited parking space. If you are driving please call the Department at 2859 2466 for parking arrangement.

All interested are welcome