



## Statistics Research & Consultancy Centre

### Distinguished Lecture Series

# Seeking Interpretable Models for High Dimensional Data

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**Date:** 15 June 2009 (Monday)

**Time:** 11:00am - 12:30 pm (Preceded by Reception at 10:30 am)

**Venue:** LT3, Y. C. Cheng Lecture Theatre,  
Ho Sin Hang Campus, Hong Kong Baptist University

### Abstract

Extracting useful information from high-dimensional data is the focus of today's statistical research and practice. After broad success of statistical machine learning on prediction through regularization, interpretability is gaining attention and sparsity has been used now as its proxy. With the virtues of both regularization and sparsity, Lasso (L1 penalized L2 minimization) has been very popular recently. In this talk, I would like to discuss the theory and practice of sparse modeling. First, I will give an overview of recent research on model selection consistency property of L1 penalized minimization including Lasso and explain what useful insights have been learned. Second I will present collaborative research on building nonparametric sparse hierarchical models that describe fMRI responses in primary visual cortex area V1 to natural images.

✦ ✦ ✦ **All are welcome** ✦ ✦ ✦

**The Medium of Instruction: English/Mandarin**

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