

**THE CHINESE UNIVERSITY OF HONG KONG**

*Department of Statistics*

will present a seminar entitled

**Topics in Functional Regression**

by

**Professor Hans Mueller  
University of California, Davis**

on

**Tuesday, 6 November 2007  
2:00pm – 3:00pm**

in

**Lady Shaw Building C5  
The Chinese University of Hong Kong**

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**Abstract:**

Functional regression analysis addresses the situation where predictors or responses in a regression setting include random functions. Early functional linear models were based on observing complete trajectories for the random functions. Generalized functional linear models can be used for binary and other generalized responses and for classification. Recent extensions include functional regression diagnostics, regression for sparse and noisy longitudinal data, time-varying functional models, and functional additive regression. A useful auxiliary tool is the representation of random functions through principal component expansions.

Illustrations include data from longitudinal, demographic and gene expression studies. The presentation draws on joint work with Jeng-Min Chiou, Peter Hall, Xiaoyan Leng, Jane-Ling Wang and Fang Yao.

**All are Welcome**