Denny H. Leung (matlhh@nus.edu.sg), Department of Mathematics

National University of Singapore, Republic of Singapore, ***Compact and weakly compact separating operators on spaces of differentiable functions.***

ABSTRACT. Two vector-valued functions defined on the same set are said to be disjoint if at each point, at least one of the functions takes the value zero. An operator from one vector-valued function space i nto another is said to be *separating* if it maps every pair of disjoint functions onto a pair of disjoint functions. In this talk, we describe characterizations of compact and weakly compact linear separating operators $T : C^p(X, E) \to C^q(Y, F)$, where $1 \leq p, q \leq \infty$, X and Y are Hilbert manifolds without boundary (for example) and E and F are Banach spaces.

This is a joint work with Ya-Shu Wang.