Title: Recent progress and open problems in the theory of non-commutative infinite-dimensional Banach spaces.

Abstract: Let H be an infinite-dimensional Hilbert space. A non-commutative Banach space, or *operator* space, is defined to be a closed linear subspace of $B(H)$ endowed with its natural tensor product norm on $\mathbf{K}$, the space of compact operators on ℓ^2. The talk will deal mainly with Banach and operator space properties of C^*- algebras, especially $\mathbf{K}$ itself, and non-commutative L^p spaces. Particular topics include operator space analogues of the separable extension property and embedding and renorming problems for non-commutative L^p spaces.