Analysis Seminar

Title: Non-commutative function theory

Speaker: J. McCarthy (St Louis)

Date: Tue 15th April 2014 at 2:30PM

Location:

Abstract: A holomorphic function (in d variables) can be thought of as a generalized polynomial in d variables. These functions work very well when applied to d-tuples of commuting matrices or operators. An nc function in d variables can be thought of as a generalized non-commutative polynomial in d variables. These functions can naturally be applied to d-tuples of non-commuting matrices or operators. We shall talk about how this is useful when studying matrix varieties, that is sets of tuples of matrices like $lbrace(X,Y) : X^2 + 2XY + 3YX = 0brace$; and when automorphisms of symmetric domains in $mathbbC^d$ extend to nc automorphisms of the corresponding nc-domains.