Analysis Seminar Thursday March 13, 2014

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Title: *Norms and essential norms of weighted composition operators from reproducing kernel Hilbert spaces into weighted-type spaces*

Abstract: Let $\mathcal{H}$ be a reproducing kernel Hilbert space of analytic functions. Consider the weighted composition operator $W_{\psi,\phi} : \mathcal{H} \to H_\mu^\infty$. We provide an exact formula for the operator norm and estimate the essential norm under some very general assumptions on $\mathcal{H}$; in the case of several Hilbert spaces, including the Hardy space H^2 and the weighted Bergman spaces A_α^2, an exact formula for the essential norm is given. Moreover we obtain estimates for the norm and essential norm of $W_{\psi,\phi} : \mathcal{H} \to \mathcal{B}_\alpha$, where $\mathcal{B}_\alpha$ denotes a Bloch type space. This is joint work with Flavia Colonna.