**FLAVIA COLONNA**, George Mason University
*Norm and essential norms of weighted composition operators acting on reproducing kernel Hilbert spaces of analytic functions.*

Let $\psi$ be an analytic function on the open unit disk $\mathbb{D}$ and let $\varphi$ be an analytic self-map of $\mathbb{D}$. The weighted composition operator with symbols $\psi$ and $\varphi$ is defined on the space of analytic functions on $\mathbb{D}$ as

$$W_{\psi,\varphi} f = \psi \cdot (f \circ \varphi).$$

Let $\mathcal{H}$ be a reproducing kernel Hilbert space of analytic functions on the unit disk. In this talk, we determine conditions on $\mathcal{H}$ and its kernel $K$ which allow us to characterize the bounded and the compact weighted composition operators from $\mathcal{H}$ into weighted-type Banach spaces. We obtain an exact formula for the operator norm and an approximation of the essential norm of the operators mapping into the space $H_\mu^\infty$, where the weight $\mu$ is a positive continuous function on $\mathbb{D}$. We obtain an exact formula of the essential norm for a large class of weighted Hardy Hilbert spaces. We also discuss the case when the Hilbert space $\mathcal{H}$ is replaced by a general Banach space of analytic functions such that all point evaluations are bounded linear functionals. This is joint work with Maria Tjani.