**On Lempert's approximation theorem**

A holomorphic function in $n$ variables is called a Nash function if its graph is contained in an algebraic hypersurface in $\mathbf{C}^n \times \mathbf{C}$. A holomorphic map is called a Nash map if each of its components is a Nash function.

The aim of this talk is to discuss an analytic proof of a Lempert's approximation theorem saying that every holomorphic map $F : K \to V$, where $K$ is a polynomially convex compact subset of some $\mathbf{C}^n$, and $V$ is an algebraic subset of some $\mathbf{C}^q$, can be uniformly approximated by a Nash map $G : K \to V$.