Non-commutative Function Spaces

Let G be a locally compact group and VN(G) be the von Neumann algebra generated by left translation operators on $L^2(G)$. When G is abelian, VN(G) is isometrically isomorphic to $L^{\infty}(\widehat{G})$, the space of essentially bounded measurable functions on the dual group \widehat{G} of G. In the talk, I shall discuss a non-commutative analogue of the space of bounded uniformly continuous functions on \widehat{G} and other subspaces of VN(G), and their dual Banach algebras.