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Non-commutative boundaries of multiplier algebras

It is a classical fact that the Shilov boundary of the disc algebra is the unit circle, which can then be identified as the character space of the smallest C^* -algebra containing an isometric copy of the disc algebra. Remarkably, the Shilov boundary can be obtained as the closure of Choquet boundary, consisting of those point evaluation characters admitting a unique representing measure. In this talk, I will discuss analogues of the aforementioned ideas for algebras of multipliers of nice complete Nevanlinna-Pick spaces on the unit ball. Since these algebras are typically not uniform algebras, this discussion involves non-commutative C^* -algebras. Nevertheless, there are meaningful non-commutative versions of the Choquet and Shilov boundaries in such a context as well, and I will identify these objects explicitly. I will also discuss the closely related concept of hyperrigidity, which is inspired by classical approximation theory results and is at the heart of a yet unresolved conjecture of Arveson. This is joint work with Michael Hartz.