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Split extensions and KK-equivalences for quantum projective spaces

In this talk, I will describe a construction of an explicit KK-equivalence between the noncommutative C*-algebras of continuous functions on the Vaksman-Soibelman quantum complex projective spaces and their commutative counterparts. The construction relies on general results about KK-equivalences, and amounts to showing that quantum complex projective spaces of different dimensions fit into a split exact sequence of C*-algebras. For our construction of a splitting, we use the graph-algebraic picture of the quantum complex projective spaces due to Hong and Szymański. Based on joint work with Sophie Emma Zegers.