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Spectral versions of Cartan's uniqueness theorem

Abstract. The classical uniqueness theorem of Cartan states that if D is a bounded domain in \mathbb{C}^N and $F: D \to D$ is holomorphic for which there exists $x \in D$ such that F(x) = x and F'(x) = I, the identity of \mathbb{C}^N , then F itself is the identity of D. In this talk we shall discuss some spectral versions of this result, involving holomorphic mappings on the spectral unit ball in Banach algebras. Some applications will also be presented.