

C. Costara, **A Cartan type theorem for finite-dimensional algebras**, *Linear Algebra Appl.*, 426 (2007), 299–304.

Abstract

Let \mathcal{A} be a finite direct sum of full matrix algebras over the complex field. We prove that if F is a holomorphic map of the open spectral unit ball of \mathcal{A} into itself such that $F(0) = 0$ and $F'(0) = I$, the identity of \mathcal{A} , then a and $F(a)$ have always the same spectrum. As an application, we obtain a new proof, purely function-theoretic, of the fact that unital spectral isometries on finite-dimensional algebras are Jordan morphisms.