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## CUBICITY OF LINEAR COMBINATIONS OF TWO COMMUTING CUBIC MATRICES

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### ABSTRACT

Let  $A_1$  and  $A_2$  be commuting cubic matrices and let  $c_1$  and  $c_2$  be non-zero complex numbers. Necessary and sufficient conditions for the cubicity of the linear combinations of the form  $A = c_1A_1 + c_2A_2$  are obtained. The results obtained could be view as a generalization of the results given for the linear combinations of tripotent matrices in [1] and an expanding of the results given for the linear combinations of quadratic matrices in [2].

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