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ON THE CLOSURE OF LINEAR COMBINATION OF
TWO SUBALGEBRAS OF CONTINUOUS
FUNCTIONS

Abstract

Let A be a set of continuous real or complex functions defined on a compact K . In this work we study conditions for which the closure \overline{A} is the algebra $C(K)$ of all continuous functions on K . In [1] the case of a subalgebra of real functions and in [2] the case when A is a lattice that is the sum of two subalgebras of real functions were considered. For complex functions, see also [1] for the case when A is the sum of a subalgebra and its complex adjoint one and, simultaneously, \overline{A} is a subalgebra itself. Here we consider the cases of the sum of two subalgebras and of linear combinations of two subalgebras.