



**LIE TRIPLE DERIVATIONS ON NEST SUBALGEBRAS OF  
VON NEUMANN ALGEBRAS**

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**Abstract**

In this paper, we prove that every Lie triple derivation from  $\text{alg}_M\beta$  into itself is of the form  $X \rightarrow XT - TX + h(X)I$ , where  $T \in \text{alg}_M\beta$  and  $h$  is a linear mapping from  $\text{alg}_M\beta$  into  $\mathbb{C}$  such that  $h(\llbracket A, B, C \rrbracket) = 0$  for all  $A, B, C \in \text{alg}_M\beta$ .

**Keywords and phrases:** Lie triple derivation, derivation, nest subalgebra.

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