Derivations of the Lie Algebra of Strictly Block Upper Triangular Matrices

Let $N$ be the Lie algebra of all $n \times n$ strictly block upper triangular matrices over a field $F$. Let $\text{Der}(N)$ be Lie algebra of all derivations of $N$. In this paper, we describe the elements and the structure of $\text{Der}(N)$. We also determine the dimensions of component subalgebras of $\text{Der}(N)$.

**Keywords**: Derivation, nilpotent Lie algebra, strictly block upper triangular matrix.

**MSC**: 17B40, 16W25, 15B99, 17B05.