ENUMERATION OF IDEALS OF EXCEPTIONAL NILPOTENT MATRIX ALGEBRAS

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In well-known enumerations of characteristic ideals of the algebra $NT(n, K)$ of all (lower) niltriangular $n \times n$ matrices over a field K and in related papers for nilpotent matrix groups and rings, the case $|K| = 2$ is, as a rule, excluded from consideration; in this case, every ideal is characteristic. We find a formula for the number of all ideals of the algebra $NT(n, K)$ over any finite field K.

Keywords: unitriangular group, niltriangular matrix, nilpotent matrix rings, ideal, combinatorial enumerations.

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