



**LIE ALGEBRA AND HERMITE-LAGUERRE
MATRIX POLYNOMIALS**

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Abstract

S. Khan and N. Raza [S. Khan and N. Raza, Hermite-Laguerre matrix polynomials and generating relations, Rep. Math. Phys. 73(2) (2014), 137-164] defined the Hermite-Laguerre matrix polynomials ${}_H L_n^{(\lambda)}(x, y; z)$. Using them, we construct a Lie algebra [Willard Miller, Jr., Lie theory and special functions, Mathematics in Science and Engineering, Vol. 43, Academic Press, New York and London, 1968].

Keywords and phrases: Lie algebra, Hermite-Laguerre matrix polynomials.

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