



**REPRESENTATION OF THE LIE ALGEBRA K_5
AND GENERALIZED HERMITE-TYPE
MATRIX POLYNOMIALS**

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Abstract

In [A. Shehata, Certain properties of generalized Hermite-type matrix polynomials using Weisner's group theoretic techniques, Bulletin of Brazilian Math. Soc. New Series 50 (2019), 419-439], A. Shehata defined the generalized Hermite-type matrix polynomials $H_{n,m}(x; A, B; a, v)$. We give a representation of the Lie algebra K_5 by using the result.

Keywords and phrases: Lie algebra K_5 , generalized Hermite-type matrix polynomials.

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