REPRESENTATION OF THE LIE ALGEBRA $K_5$
AND 2-VARIABLE GENERALIZED HERMITE
MATRIX POLYNOMIALS

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Abstract

S. Khan and N. Raza [S. Khan and N. Raza, 2-variable generalized Hermite matrix polynomials and Lie algebra representation, Reports on mathematical Physics 66 (2010), 159-174] defined the 2-variable generalized Hermite matrix polynomials $H_n^{(2)}(x; y; A)$. Using them, we give a representation of the Lie algebra $K_5$.

Keywords and phrases: Lie algebra $K_5$, 2-variable generalized Hermite matrix polynomials.