



**REPRESENTATION OF LIE ALGEBRA  $K_5$  AND  
GEGENBAUER-HERMITE POLYNOMIALS**

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**Abstract**

Dattoli et al. [G. Dattoli, P. E. Ricci, C. Cesarano and L. Vázquez, Special polynomials and fractional calculus, *Mathematical and Computer Modelling* 37(7-8) (2003), 729-733] defined the polynomials  ${}_v H_n(x, y; \alpha)$ . We call them Gegenbauer-Hermite polynomials, and using them, we give a representation of the Lie algebra  $K_5$ .

**Keywords and phrases:** Lie algebra  $K_5$ , Gegenbauer-Hermite polynomials.

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