



**REPRESENTATION OF LIE ALGEBRA  $K_5$   
AND GOULD-HOPPER-GENOCCHI  
POLYNOMIALS**

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**Abstract**

We give a representation of the Lie algebra  $K_5$  [Willard Miller, Jr., Lie theory and special functions, Mathematics in Science and Engineering, Vol. 43, Academic Press, New York and London, 1968], by using the Gould-Hopper-Genocchi polynomials [S. Khan and N. Raza, General-Appell polynomials within the context of monomiality principle, Int. J. Anal. (2013), 1-11].

**Keywords and phrases:** Lie algebra  $K_5$ , Gould-Hopper-Genocchi polynomials.

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