



**LIE ALGEBRA AND HERMITE-LAGUERRE
POLYNOMIALS**

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Received November 11, 2019

Abstract

Dattoli et al. [G. Dattoli, S. Lorenzutta and C. Cesarano, Generalized polynomials and new families of generating functions, Ann. Univ. Ferrara-Sez. VII-Sc. Mat. 47 (2001), 57-61] defined Hermite-Laguerre polynomials $H_n^{(L)}(x, y; z)$. 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 polynomials.

**Pioneer Journal
of Mathematics
and Mathematical
Sciences**



Pioneer Scientific
Publisher