



**LIE ALGEBRA AND ASSOCIATED LAGUERRE  
POLYNOMIALS OF TWO VARIABLES**

Tadayoshi Takebayashi

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**Abstract**

Dattoli et al. [G. Dattoli, A. Torre and A. M. Mancho, The generalized Laguerre polynomials, the associated Bessel functions and application to propagation problems, *Radiation Physics and Chemistry* 59 (2000), 229-237] defined the associated Laguerre polynomials of two variables. 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, associated Laguerre polynomials of two variables.

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