



**LIE ALGEBRA AND GEGENBAUER
POLYNOMIALS**

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Abstract

Using the Gegenbauer polynomials [M. A. Pathan, R. Agarwal and S. Jain, A unified study of orthogonal polynomials via Lie algebra, Reports Mathematica Physics 79(1) (2017), 1-11], 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].

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