



**DIFFERENTIAL EQUATIONS OF GENERALIZED
GEGENBAUER POLYNOMIALS**

Tadayoshi Takebayashi

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Abstract

We examine differential equations of the generalized Gegenbauer polynomials $C_{\alpha, p, q, n}^{\lambda}(x)$ [S. Khan, A. A. Al-Gonah and G. Yasmin, Generalized and mixed type Gegenbauer polynomials, J. Math. Anal. Appl. 390(1) (2002), 197-207, Z. Zhang, Some identities involving generalized Gegenbauer polynomials, Advances in Difference Equations 2017 (2017), 391].

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