# REPRESENTATION OF THE LIE ALGEBRA $G(0, 1)$ AND 3-INDEX 3-VARIABLE HERMITE MATRIX POLYNOMIALS

Tadayoshi Takebayashi

## Abstract

In [S. Khan and A. Al-Gonah, Multi-variable Hermite matrix polynomials: properties and applications, J. Math. Anal. Appl. 412(1) (2014), 222-235], S. Khan and A. Al-Gonah defined 3-index 3-variable Hermite matrix polynomials. Using them and the method by M. A. Pathan et al. [M. A. Pathan, S. Khan and G. Yasmin, Representation of a Lie algebra $G(0, 1)$ and three variable generalized Hermite polynomials $H_n(x, y, z)$, Integral Transforms Spec. Funct. 13(1) (2002), 59-64], we give a representation of the Lie algebra $G(0, 1)$.