



Some relations on Konhauser matrix polynomials

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Abstract:

This paper deals with the study of the generalized hypergeometric matrix function and obtain some of its properties. We rephrase some results from the previous(earlier) works that will be used in this study. We get the hypergeometric matrix function representation, matrix differential equation, generating matrix functions, bilinear generating matrix functions, matrix recurrence relations, finite summation formulas and related results for the Konhauser matrix polynomials given in [34]. Finally, we give some important results involving properties of Mittag-Leffler and Bessel-Maitland matrix functions as applications.

Keywords:

Matrix polynomials; Generalized hypergeometric matrix function; Integral representation; Konhauser matrix polynomials; Generating matrix functions; Matrix differential equation; Finite summation.

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