



Certain generating relations of Konhauser matrix polynomials from the view point of Lie algebra method

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Abstract:

This paper is devoted to construct Lie operators associated with Konhauser matrix polynomials of the first kind using Lie group theory. Furthermore, certain generating matrix functions, integral representations, and matrix differential recurrence relations, new and known consequences for Konhauser matrix polynomials are derived and their applications are presented.

Keywords:

Konhauser matrix polynomials, Matrix recurrence relations, Matrix differential equations, Generating matrix functions, Lie algebra method, Lie group theory.

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