

Choque-Rivero, Abdon E.

A multiplicative representation of the resolvent matrix of the truncated Hausdorff matrix moment problem via new Dyukarev-Stieltjes parameters. (English) Zbl 1399.30143

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Summary: A new multiplicative decomposition of the resolvent matrix of the truncated Hausdorff matrix moment (THMM) problem in the case of odd and even number of moments via new Dyukarev-Stieltjes matrix (DSM) parameters is proposed. Additionally, we derive Blaschke-Potapov factors of auxiliary resolvent matrices. Each factor is decomposed with the help of the DSM parameters.

MSC:

- [30E05](#) Moment problems and interpolation problems in the complex plane
- [42C05](#) Orthogonal functions and polynomials, general theory of nontrigonometric harmonic analysis
- [47A56](#) Functions whose values are linear operators (operator- and matrix-valued functions, etc., including analytic and meromorphic ones)
- [30B70](#) Continued fractions; complex-analytic aspects

Cited in **2** Documents

Keywords:

orthogonal matrix polynomial; Dyukarev-Stieltjes parameter; resolvent matrix; continued fraction

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