

TOEPLITZ-PLUS-HANKEL BEZOUTIANS AND INVERSES OF TOEPLITZ AND TOEPLITZ-PLUS-HANKEL MATRICES

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Abstract. In the present paper Bezoutian-type formulas for the inverses of Toeplitz-plus-Hankel (T+H) matrices are presented which involve bases of kernels of associated rectangular T+H matrices. Special Bezoutians of this type yield inverses of symmetric or skewsymmetric Toeplitz matrices and vice versa. In the skewsymmetric case these formulas lead directly to splitting formulas for inverses of centro-skewsymmetric T+H matrices.

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