

RIGHT INVERTIBLE MULTIPLICATION OPERATORS AND STABLE RATIONAL MATRIX SOLUTIONS TO AN ASSOCIATE BEZOUT EQUATION, II: DESCRIPTION OF ALL SOLUTIONS

A. E. FRAZHO, M. A. KAASHOEK AND A. C. M. RAN

Abstract. This paper presents a state space description of the set of all solutions to a rational corona type Bezout equation, starting from a stable state space representation of the given coefficient matrix. In other words, we describe the null space of an analytic Toeplitz operator with a rational symbol, in terms of the matrices occurring in a realization of that symbol, assuming the operator involved is right invertible. A state space version of the related Tolokonnikov lemma is also included.

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