

Wiener-Hopf factorization for a class of matrix functions using an isomorphism with a group of scalar functions on a Riemann surface

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An isomorphism between a group of Daniele-Khrapkov matrix functions and the group of invertible Hölder continuous scalar functions defined on a contour in an appropriate Riemann surface is presented. It is shown that this isomorphism can be used to obtain a meromorphic factorization for Daniele-Khrapkov matrices, from an appropriate factorization of scalar functions in the Riemann surface. A Wiener-Hopf factorization is obtained from the meromorphic one.

This is a joint work with C. Câmara.