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TWO APPLICATIONS OF A BOUND ON THE HADAMARD PRODUCT WITH A CAUCHY MATRIX*

ROGER A. HORN† AND FUAD KITTANEH‡

Dedicated to Hans Schneider on the occasion of his seventieth birthday

Abstract. A fundamental bound for a Hadamard multiplier operator of Cauchy type implies a known bound on the inverse of the operator $T : X \to AX - XB$ as well as a general perturbation bound involving the unitary factor in the polar decomposition; the latter bound leads to a perturbation bound on the positive semidefinite factor.

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† Mathematics Department, University of Utah, Salt Lake City, Utah 84112, USA (rhorn@math.utah.edu).

‡ Department of Mathematics, University of Jordan, Amman, Jordan.