The Electronic Journal of Linear Algebra.
A publication of the International Linear Algebra Society.
Volume 7, pp. 178-181, September 2000.
ISSN 1081-3810. http://math.technion.ac.il/iic/ela

ELA

ON CONVERGENCE OF INFINITE MATRIX PRODUCTS*

OLGA HOLTZ†

Abstract. A necessary and sufficient condition for the convergence of an infinite right product of matrices of the form

$$A := \begin{bmatrix} I & B \\ 0 & C \end{bmatrix},$$

with (uniformly) contracting submatrices C, is proven.

Key words. Infinite matrix products, RCP sets.

AMS subject classifications. 15A60, 15A99

*Received by the editors on 6 September 2000. Accepted for publication on 21 September 2000. Handling Editor:Daniel Hershkowitz.

† Department of Computer Sciences, University of Wisconsin, Madison, Wisconsin 53706 U.S.A. (holtz@cs.wisc.edu). This work was supported in part by the Clay Mathematics Institute.