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PARTIAL CONVERGENCE AND SIGN CONVERGENCE OF MATRIX POWERS VIA EIGEN C–ADS*

FRANK UHLIG†

Abstract. This paper investigates the convergence over the reals and in the sign $+, -, 0$ sense of individual elements of matrix powers A^k as $k \to \infty$ in dependence on the eigenvalues and left and right (generalized) eigenvector structure of a given matrix $A \in \mathbb{R}^{nn}$ theoretically and computationally.

Key words. Matrix powers, partial convergence, sign convergence, c–ad, dyad, matrix eigenstructure

AMS subject classifications. 40A99, 15A99, 15A18, 15A24, 15A48

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†Department of Mathematics, Auburn University, Auburn, AL 36849–5310, USA (uhligfd@mail.auburn.edu).