The Electronic Journal of Linear Algebra.
A publication of the International Linear Algebra Society.
Volume 1, pp. 44-58, November 1996.
ISSN 1081-3810. http://gauss.technion.ac.il/iic/ela

ELA

PERIODIC COPRIME MATRIX FRACTION DECOMPOSITIONS*

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Abstract. A study is presented of right (left) coprime decompositions of a collection of N-periodic rational matrices, with some ordered structure. From a block-ordered right coprime decomposition of a rational matrix of the given periodic collection, the corresponding block-ordered right coprime decompositions of the remaining matrices of the collection are constructed. In addition, those decompositions are N-periodic.

Key words. Periodic rational matrices, coprime decompositions, Smith canonical form

AMS(MOS) subject classification. 15A23, 93C50

* Received by the editors on 2 June 1996. Final manuscript accepted on 6 November 1996. Handling editor: Daniel Hershkowitz.

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§ Supported by Spanish DGICYT grant number PB94-0532.