

ON LOW RANK PERTURBATIONS OF COMPLEX MATRICES AND SOME DISCRETE METRIC SPACES*

LEV GLEBSKY[†] AND LUIS MANUEL RIVERA[‡]

Abstract. In this article, several theorems on perturbations of a complex matrix by a matrix of a given rank are presented. These theorems may be divided into two groups. The first group is about spectral properties of a matrix under such perturbations; the second is about almost-near relations with respect to the rank distance.

Key words. Complex matrices, Rank, Perturbations.

AMS subject classifications. 15A03, 15A18.

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[†]IICO, Universidad Autonoma de San Luis Potosi, Mexico, (glebsky@cactus.iico.uaslp.mx).

[‡]Universidad Autonoma de Zacatecas, Mexico, (luismanuel.rivera@gmail.com).