



INTISARI

AKAR MATRIKS NONNEGATIF

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Akar matriks nonnegatif dari suatu matriks $A \in M_n(\mathbb{R}^+)$ adalah matriks nonnegatif $B \in M_n(\mathbb{R}^+)$ yang memenuhi $B^2 = A$. Pada skripsi ini akan dibahas mengenai eksistensi dari akar matriks nonnegatif berukuran 2×2 , akar matriks nonnegatif berukuran $n \times n$ dan hubungannya dengan akar digraf; serta akar matriks nonnegatif pada matriks nonnegatif simetris.



ABSTRACT

NONNEGATIVE SQUARE ROOTS OF MATRICES

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The nonnegative square roots of a matrix $A \in M_n(\mathbb{R}^+)$ is nonnegative matrix $B \in M_n(\mathbb{R}^+)$ which satisfies $B^2 = A$. In this thesis, we will examine the existence of nonnegative square roots for $2 - by - 2$ nonnegative matrices, the relation between the nonnegative square roots for $n - by - n$ nonnegative matrices and the square roots of digraph, and the nonnegative square roots of symmetric nonnegative matrices.