POVZETEK

V diplomski nalogi je predstavljen Perron-Frobeniusov izrek, ki v splošnem pravi, da je največja lastna vrednost po absolutni vrednosti nerazcepne nenegativne matrike vedno pozitivna, njen pripadajoči lastni vektor ima pozitivne komponente in njena algebraična večkratnost je 1. Za strogo pozitivne matrike še velja, da so ostale lastne vrednosti matrike po absolutni vrednosti strogo manjše od spektralnega radija.

ABSTRACT

This thesis presents Perron-Frobenius theorem, which states that the greatest eigenvalue of irreducible nonnegative matrix is always positive, its corresponding eigenvector has positive components and its algebraic multiplicity is 1. Theorem for strictly positive matrix also states, that the greatest eigenvalue by its absolute value is greater than absolute values of all other eigenvalues.

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