

# Abstract

The Laplacian spectral radius of a graph is the maximum eigenvalue of the Laplacian matrix. We first give basic definitions, some known theorems and lemmas on Laplacian spectral radius and Spectrum of simple graphs. After that we use the previous results and present some new upper bounds for Laplacian spectral radius. Moreover, we form some new general formulas and results about Spectrum of simple graphs. The first and second chapter contains basic definitions and some known results, respectively. The third chapter contains some new results and upper bounds.