EXTREMAL UNICYCLIC GRAPHS WITH MINIMAL DISTANCE SPECTRAL RADIUS¹

HONGYAN LU, JING LUO

AND

ZHONGXUN ZHU²

*College of Mathematics and Statistics
South Central University for Nationalities
Wuhan 430074, P.R. China*

e-mail: zzxun73@mail.scuec.edu.cn

Abstract

The distance spectral radius $\rho(G)$ of a graph G is the largest eigenvalue of the distance matrix $D(G)$. Let $\mathcal{U}(n, m)$ be the class of unicyclic graphs of order n with given matching number m ($m \neq 3$). In this paper, we determine the extremal unicyclic graph which has minimal distance spectral radius in $\mathcal{U}(n, m) \setminus C_n$.

Keywords: distance matrix, distance spectral radius, unicyclic graph, matching.

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²Corresponding author.

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