The circular chromatic numbers of signed series-parallel graphs

Zhishi Pan* and Xuding Zhu†

*Department of Mathematics, Tamkang University, Taiwan.

†Department of Mathematics, Zhejiang Normal University, China.

Abstract

It is known that any signed series-parallel graph (G, σ) has circular chromatic number at most 10/3. This paper proves that for each rational $r \in [2, 10/3]$, there is a signed series-parallel graph (G, σ) whose circular chromatic number equals r.

Keywords: circular coloring, circular coloring of signed graphs, circular chromatic number of signed graphs, series parallel graphs, K_4 minor free graphs

*E-mail: zhishi@mail.tku.edu.tw.

†E-mail address: xdzhu@zjnu.edu.cn.