

星狀網路通過特定邊的漢米爾頓迴圈與漢米爾頓路徑邊容錯之研究

游宗育、洪春男

E-mail: 343882@mail.dyu.edu.tw

摘要

在連結網路中Star graph是一個耳熟能詳的拓樸網路架構。此論文中探討星狀圖特定邊通過漢米爾頓迴路和漢米爾頓路徑之邊容錯性質。先令 F_e 是 S_n 上壞邊的集合和 E_0 是 S_n 上不相同且不相交的点所構成的路徑上的邊集合。首先，我們要證明的是在 S_n 上 F_e 時任給 F_e $n - 3$ 條壞邊，再任給 E_0 $2n - 5$ F_e 條特定邊會有漢米爾頓迴路來通過所有的特定邊，任給 F_e $n - 3$ 條壞邊，再任給 E_0 $2n - 7$ F_e 條特定邊會有漢米爾頓路徑來通過所有特定邊。之後，我們將改進結果使得可以指定更多特定邊，我們將證明任給 F_e $n - 3$ 條壞邊，再任給 E_0 $2n - 6$ F_e 條特定邊會有漢米爾頓路徑來通過所有特定邊。

關鍵詞：星狀圖、漢米爾頓路徑、漢米爾頓迴路、邊容錯、特定邊

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