

星狀網路的漢米爾頓可蓄絲相鄰點容錯之研究

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摘要

令 S_n 是 n 維的星狀網路。在這篇論文裡，我們證明了當有 F 對壞點且 $|F|$ 小於等於 $(n-3)$ 時， S_n 是Hamiltonian。當 $|F|$ 小於等於 $(n-4)$ 時， S_n 是Hamiltonian laceable而且也是hyper-Hamiltonian laceable。根據上面的結果，我們可以證明在有 F' 個壞點，當 $|F'|=f'$ 小於等於 $(n-2)$ 個點時，有長度最少為 $n!-2f'+2$ 長度的cycle在 S_n 。當 $|F'|=f'$ 小於等於 $(n-3)$ 個點時，有長度最少為 $n!-2f'+1$ 長度的路徑在任兩個不同顏色的點之間，還有長度最少為 $n!-2f'$ 長度的路徑在任兩個相同顏色的點之間。

關鍵詞：星狀網路；漢米爾頓可蓄絲

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