

交叉立方體條件式容錯漢米爾頓迴路

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摘要

在連結網路中交叉立方體(crossed cube)是由超立方體(hypercube)變形而成的拓樸網路架構，它擁有一些比超立方體更好的性質。令 CQ_n 代表 n 維交叉立方體、 F_v 代表其中的壞點集合、 F_e 代表壞邊集合，在此論文中我們證明在 CQ_n 上， $n \geq 3$ ，每個好的點分支度(degree)至少為2的前提下，若 $|F_v| + |F_e| \leq 2n - 6$ ， $CQ_n - F_v - F_e$ 仍然漢米爾頓圖形。除此之外，我們也證明：當 $|F_v| + |F_e| \leq 2n - 6$ 時，在 $CQ_n - F_v - F_e$ 可以找到長度至少為 $2n - |F_v| - 1$ 的迴路(cycle)。

關鍵詞：點邊容錯、交叉立方圖、漢米爾頓迴路、壞點、壞邊、超立方體、連結網路

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