

The Study of Adjacent Vertices Fault Tolerance Hamiltonian Laceability of Star Graphs

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ABSTRACT

The star graph is a famous interconnection network. In this thesis, we will investigate the edge fault tolerance and adjacent vertex fault tolerance for some Hamiltonian property of the star graph. Let S_n be an n -dimensional star graph, and let F_e be the set of f_e faulty edges and let F_{av} be the set of f_{av} pairs of adjacent faulty vertices of S_n . In this thesis, we show that there exists a Hamiltonian path $P(b, w)$ of $S_n - F_{av} - F_e$ where b and w are arbitrary two vertices with odd distance for $f_{av} + f_e \leq n - 3$ and $n \geq 5$.

Keywords : star graph、adjacent vertices fault tolerance、edges fault tolerance

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