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Conditional fault Hamiltonicity of the star graph.

Fault tolerance is an important property on network performance. A graph G is k -edge-fault conditional Hamiltonian if $G - F$ is Hamiltonian for every $F \subseteq E(G)$ with $|F| \leq k$ and $\delta(G - F) \geq 2$. We show that for $n \geq 4$, the n -dimensional star graph S_n is $(3n - 10)$ -edge-fault conditional Hamiltonian. (Received March 20, 2010)