

完全多部图与完全图Kronecker积的点参数研究

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Vertex vulnerability parameters of Kronecker products of complete multipartite graphs and complete graphs

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摘要 若 G_1 和 G_2 是两个图, G_1 和 G_2 的Kronecker图定义为 $V(G_1 \times G_2) = V(G_1) \times V(G_2)$, $E(G_1 \times G_2) = \{(u_1, v_1)(u_2, v_2)\}$. 在本文中, 我们计算了 p -部完全图 K_{m_1, m_2, \dots, m_p} 和完全图 K_n 的Kronecker积的顶点参数, $m_1 \leq m_2 \leq \dots \leq m_p, 2 \leq p \leq n$, and $n \geq 3$, 扩展了Mamut和Vumar的相关结论[Inform. Process. Lett. 106(2008)258-262].

关键词: [Kronecker积](#) [点脆弱性参数](#) [割集](#) [完全 \$p\$ -部图](#) [完全图](#)

Abstract: Let G_1 and G_2 be two graphs. The Kronecker product $G_1 \times G_2$ is defined as $V(G_1 \times G_2) = V(G_1) \times V(G_2)$ and $E(G_1 \times G_2) = \{(u_1, v_1)(u_2, v_2) : u_1 u_2 \in E(G_1) \text{ and } v_1 v_2 \in E(G_2)\}$. In this paper we compute several vertex vulnerability parameters of Kronecker product of a complete p -partite graph K_{m_1, m_2, \dots, m_p} and a complete graph K_n on n vertices, where $m_1 \leq m_2 \leq \dots \leq m_p, 2 \leq p \leq n$, and $n \geq 3$. This result generalizes the previous result by Mamut and Vumar.

Keywords: [Kronecker product](#), [vertex vulnerability parameter](#), [cut set](#), [complete \$p\$ -partite graph](#), [complete graph](#)

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