

Xie, Litong**The number of i -claw k -independent sets of a simple graphs is reconstructible.** (Chinese. English summary) [Zbl 0986.05077](#)*Acta Math. Sci., Ser. A, Chin. Ed.* 21, No. 2, 284-288 (2001).

An independent set g_k of a graph $G(V, E)$, which contains k vertices, is called a k -independent set of $G(V, E)$. A k -independent set is said to be maximal if it is not a proper subset of any other independent set of $G(V, E)$. If there exists $\{v_1, v_2, \dots, v_i\} \subset V - g_k$, $i \geq 1$, such that (1) for any $j \in \{1, 2, \dots, i\}$, $g_k + \{v_j\}$ is a $(k + 1)$ -independent set, and (2) for any $u \in V - g_k - \{v_1, v_2, \dots, v_i\}$, $g_k + \{u\}$ is not an independent set of $G(V, E)$, g_k is called an i -claw k -independent set. The paper shows that both the number of i -claw k -independent sets and the number of maximal k -independent sets of $G(V, E)$ are reconstructible for simple graphs. Likewise, both the number of i -claw k -cliques and the number of maximal k -cliques in $G(V, E)$ are also reconstructible.

Reviewer: [Wai-Kai Chen \(Chicago\)](#)**MSC:****05C60** Isomorphism problems in graph theory (reconstruction conjecture, etc.) and homomorphisms (subgraph embedding, etc.)**Keywords:**[reconstruction](#); [independent set](#)