1073-05-252 **Hehui Wu*** (noshell@hotmail.com). *Local edge-connectivity and forest decomposition.*

Two vertices u, v are j-edge-connected in a graph G if there are j edge-disjoint u, v-paths in G. A vertex set S of G is j-edge-connected in G if any two vertices in S are j-edge-connected in G. A S-tree is a subtree of G that spans S. Given a family of disjoint vertex set $\mathcal{S} = \{S_1, S_2, \ldots, S_l\}$, a $\mathcal{S}$-forest is a acyclic subgraph of G in which S_i lie in the same component for each i with $1 \leq i \leq l$.

Krisell conjectured that if S is $2k$-edge-connected in G, then G has k edge-disjoint S-trees. More generally, there is a corresponding conjecture about $\mathcal{S}$-packing, and Lap Chi Lau proved that given a family of disjoint vertex set $\mathcal{S} = \{S_1, S_2, \ldots, S_l\}$, if S_i is $32k$-edge-connected in G for each i with $1 \leq i \leq l$, then G has k edge-disjoint $\mathcal{S}$-forests. In a recent paper, West and the speaker proved that if S is 6.5-edge-connected in G, then G has k edge-disjoint S-trees. In this talk, the speaker will extend the result to $\mathcal{S}$-forest packing problem. (Received August 02, 2011)