Star Factors with Large Components

Mikio Kano
Ibaraki University

Japan

We show the following results and some other related results. Also we explain the proof technique so called β-method.

Theorem 1 (M.K and Saito) *Let $m \geq 2$ be a positive integer and let G be a graph. If $i(G - S) \leq |S|/m$ for all $S \subset V(G)$, then G has a $\{K_{1,\ell} : m \leq \ell \leq 2m\}$-factor, where $i(G - S)$ denotes the number of isolated vertices of $G - S$.*

This is a generalization of the following theorem in some sense.

Theorem 2 (M.K, Lu and Yu) *If $i(G - S) \leq |S|/2$, then G has a $\{K_{1,2}, K_{1,3}, K_5\}$-factor.*