

1126-05-67

Xueliang Li* (lx1@nankai.edu.cn), Center for Combinatorics, Nankai University, Tianjin, 300071, Peoples Rep of China, **Wasin So**, CA, and **Ivan Gutman**, , Serbia. *Constructions of Graphs and Trees with Partially Prescribed Spectrum*. Preliminary report.

It is shown how a connected graph and a tree with partially prescribed spectrum can be constructed. These constructions are based on a recent result of Salez that every totally real algebraic integer is an eigenvalue of a tree. Our result implies that for any (not necessarily connected) graph G , there is a tree T such that the characteristic polynomial $P(G, x)$ of G can divide the characteristic polynomial $P(T, x)$ of T , i.e., $P(G, x)$ is a divisor of $P(T, x)$. (Received January 01, 2017)