Hua Wang* (hwang@georgiasouthern.edu). 'Semi-Regular Trees' and Their Applications.

For trees, we present an interesting 'semi-regular' property, which emerged from the study of the extremal questions regarding trees and several topological indices from different backgrounds. We shall see that this 'semi-regular' property plays an important role in characterizing the extremal structures and potentially leads to a unified solution for various extremal problems. (Received September 07, 2009)