1077-05-1811 Hana Kim* (hakkai14@skku.edu), Department of Mathematics, Sungkyunkwan University, Suwon, Gyeonggido 440-746, South Korea, Gi-Sang Cheon (gscheon@skku.edu), Department of Mathematics, Sungkyunkwan University, Suwon, Gyeonggido 440-746, South Korea, and L. W. Shapiro (lou.shapiro@gmail.com), Department of Mathematics, Howard University, WA DC 20059. Combination of ordered trees associated with nonnegative integer sequences.

For a sequence $A=\left(a_{k}\right)_{k \geq 0}, a_{0}=1$ of nonnegative integers, $A$-ordered tree is an edge-colored ordered tree satisfying the following conditions:
(i) the set of possible outdegrees of nonroot vertices is $\left\{k \mid a_{k} \neq 0\right\}$;
(ii) the rightmost edge from a nonroot vertex of degree $k$ is colored by $a_{k}$ colors.

In this talk, we consider an enumeration problem for $A$-ordered trees. In particular, the generating functions for vertices and leaves of those trees are given respectively. Further, we discuss a combination of $A$ - and $B$-ordered trees, and explore how the combination of two ordered trees can be translated in the real world. (Received September 21, 2011)

