



Figure S17: Illustration of the construction of a minimal set of crosses to distinguish the partitions induced by a tree. In the upper panel, the nine taxa (indicated with upper-case letters) are divided into three groups (indicated with numbers) by the method described in the Appendix. Internal edges are indicated with lower-case letters. The lower panel contains the subtree of six taxa defined by excluding the first group of three taxa (A, C, and F). The method described in the Appendix identifies the set  $A \times C$ ,  $C \times F$ ,  $B \times E$ ,  $E \times H$ ,  $D \times G$ , and  $G \times I$  as six crosses sufficient to distinguish all 15 partitions induced by the tree.