MAXIMAL BUTTONINGS OF TREES

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Abstract

A buttoning of a tree that has vertices $v_1, v_2, \ldots, v_n$ is a closed walk that starts at $v_1$ and travels along the shortest path in the tree to $v_2$, and then along the shortest path to $v_3$, and so forth, finishing with the shortest path from $v_n$ to $v_1$. Inspired by a problem about buttoning a shirt inefficiently, we determine the maximum length of buttonings of trees.

Keywords: centroid, graph metric, tree, walk, Wiener distance.

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References


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