

Diagram illustrating the structure of the 2^6 braid group B_6 using a tree-like representation. The root node is labeled $\text{ROOT} -1\ 4\ 2\ -5\ 6\ -3$. The tree branches out into five nodes, each representing a different braid configuration. The nodes are labeled with their respective braid configurations and the corresponding braid elements (e.g., $4\ 3$, $2\ 1$, $6\ 5$, etc.). The diagram shows the relationships between these braid configurations and the elements of the braid group.