

Diagram illustrating a sequence of transformations (likely braid moves) on a set of 6 strands, labeled with sequences of numbers (1-6) and operations (DUP, SWAP, etc.). The diagram is organized into a hierarchical tree structure, showing the evolution of the braid from a root state to various intermediate and final states.

Root State: Labeled "ROOT 4-6 2-1 5-3". The strands are arranged in a specific braid configuration.

Intermediate States and Operations:

- Top Right Branch:** Labeled "2-1 5 6-4-3". Operation: "8DUP-2-1 5 6-4-3".
- Top Left Branch:** Labeled "5-1-2 6-4-3". Operation: "4-5".
- Middle Right Branch:** Labeled "5-1 2 3 4-2 6-1 5 6-4-3". Operation: "5-4", "4-5", "2-1 2-3".
- Middle Left Branch:** Labeled "4-6-2-1 5-3". Operation: "2-1", "2-3", "5-6".
- Bottom Left Branch:** Labeled "4-6-2-1 5-3". Operation: "4-3", "5-6".
- Bottom Middle Branch:** Labeled "4-6-2-3-5 1". Operation: "4-5".
- Bottom Right Branch:** Labeled "4-6-5-1-2-3". Operation: "4-5", "4-3", "1-2".

Final States and Operations:

- Bottom Left Sub-branch:** Labeled "16DUP-5 1 2 6-4-3". Operation: "2-3", "6-5".
- Bottom Middle Sub-branch:** Labeled "4-5 6 1-2-3". Operation: "4-3", "1-2".
- Bottom Right Sub-branch:** Labeled "45DUP 2-1 5 6-4-3". Operation: "2-1 2-3", "5-4".
- Bottom Far Right Sub-branch:** Labeled "53DUP 4 6-2-1 5 6-4-3". Operation: "4-5", "4-3", "2-3".

The diagram shows a complex sequence of braid moves, including duplications (DUP), swaps (SWAP), and specific strand permutations, leading to a final state with 18 strands.