

The diagram illustrates a hierarchical tree structure, likely representing a recursive splitting process in a 1D space. The root node at the top splits into two children. These children further split into four, and so on, creating a binary tree structure. The nodes are represented by small blue dots, and the edges are lines connecting them. The tree structure shows how a single interval is recursively divided into smaller intervals, which is a common technique in numerical methods for solving differential equations or in data structures like segment trees.