A novel approach to SMTs which provides efficient non-membership proofs, allowing for the creation of new and faster blockchains similar to Plasma Cash.

You can find the full paper herehttps://osf.io/8mcnh/.

To achieve this C-SMT, we need to augment the tree nodes to contain a parameter called

max-key.

So for every non-leaf node, it's two children will have max-key values representing the maximum key in their respective subtree. An incoming key to be inserted in this SMT would get put in the subtree for which it's binary distance is closest. And it will recursively go down the tree following this approach until it reaches a leaf node.

The key gets inserted at this level and the hashes and max-key values are adjusted as we recurse back.

The path which the key follows down the tree is called minimum distance path and we call this approach for inserting a key as Minimum distance path algorithm.

You can read more about the approach in the paper link provided above.