
Algorithm 1 Add Equation. An observed equation is added to the learned model as a new node or as a merged node, based on the closeness that it has among all involved nodes.

Input: similarity threshold sim_th

```
1: procedure ADD_EQUATION(directSuccessorsDistances, equation)
2:    $closestNode \leftarrow$  getClosestDistanceAboveThreshold(directSuccessorsDistances,  $sim\_th$ )
3:    $farNode \leftarrow$  getClosestDistanceBelowThreshold(directSuccessorsDistances,  $sim\_th$ )
4:   if  $closestNode.isEmpty()$  then
5:      $bestChange \leftarrow$  evaluateMerge( $closestNode$ , equation)
6:     if  $bestChange == \text{addition}$  then
7:       return addNodeToLearnedModel( $closestNode$ , equation)
8:     else
9:       return updateNode( $closestNode$ ,  $bestChange$ )
10:    end if
11:  end if
12:  if  $farNode.isEmpty()$  then
13:    if  $farNode.exists(equation)$  then
14:      return increaseWeight( $farNode$ )
15:    else
16:      return addNodeToLearnedModel( $farNode$ , equation)
17:    end if
18:  end if
19: end procedure
```
