

Input: table L and sorted array H of SPM-relevant suffixes β
 functions $process_leafedge$, $process_branchedge$ and $process_lcpinterval$
 to process the enumerated items

Output: Processed implicit branch- and leaf-edges of the lcp-interval tree
 in bottom-up order

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1:  $stack := []$  ▷ empty stack
2:  $lastitv := \perp$ 
3:  $firstedgefromroot := true$  ▷ No edge from root yet
4:  $stack.push(0, 0, \perp)$  ▷ Push root-interval with undefined  $rb$ -value
5: for  $e := 0$  to  $\beta - 2$  do
6:   if  $L_{e+1} \leq stack.top.lcp$  then ▷ new
7:     if  $stack.top.lcp > 0$  then ▷ new
8:        $firstedge := false$  ▷ new
9:     else ▷ new
10:        $firstedge := firstedgefromroot$  ▷ new
11:        $firstedgefromroot := false$  ▷ new
12:        $process\_leafedge(firstedge, stack.top, H_e)$  ▷ new
13:   while  $L_{e+1} < stack.top.lcp$  do
14:      $lastitv := stack.pop$ 
15:      $lastitv.rb := e$ 
16:      $process\_lcpinterval(lastitv)$ 
17:     if  $L_{e+1} \leq stack.top.lcp$  then
18:       if  $stack.top.lcp > 0$  then ▷ new
19:          $firstedge := false$  ▷ new
20:       else ▷ new
21:          $firstedge := firstedgefromroot$  ▷ new
22:          $firstedgefromroot := false$  ▷ new
23:          $process\_branchedge(firstedge, stack.top, lastitv)$ 
24:          $lastitv := \perp$ 
25:     if  $L_{e+1} > stack.top.lcp$  then
26:       if  $lastitv \neq \perp$  then
27:          $stack.push(L_{e+1}, lastitv.lb, \perp)$ 
28:          $process\_branchedge(true, stack.top, lastitv)$ 
29:          $lastitv := \perp$ 
30:       else
31:          $stack.push(L_{e+1}, e, \perp)$ 
32:          $process\_leafedge(true, stack.top, H_e)$  ▷ new

```