Algorithm 1 Hill Climbing First Improvement

1: **function** HCFI($int\ max\_nb\_eval$)
2:     $s = random\_solution()$
3:     **repeat**
4:         $s' = getRandomNeighbor(s)$
5:         **if** $fitness(s') < fitness(s)$ **then**
6:             s' = s
7:         **end if**
      $nb\_eval = nb\_eval + 1$
8:     **until** $nb\_eval \leq max\_nb\_eval$
9:     Return s
10: **end function**

Algorithm 2 Hill Climbing Best Improvement

1: **function** HCFI($int\ max\_nb\_eval$)
2:     $s = random\_solution()$
3:     **repeat**
4:         $s' = getBestNeighbor(s)$
5:         s' = s
      $nb\_eval = nb\_eval + 1$
6:     **until** $nb\_eval \leq max\_nb\_eval$
7:     Return s
8: **end function**