
Algorithm 1 Post Smoothing

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1: procedure POST SMOOTHING
2:   for each valid_state  $s$  do
3:      $valid\_successor \leftarrow successor(s)$ 
4:      $safe \leftarrow True$ 
5:      $stop \leftarrow False$ 
6:     for each  $successor(s)$   $next$  and  $safe$  not  $False$  and  $stop$  not  $True$  do
7:        $line \leftarrow segment(s, next)$ 
8:       for each room  $\pi$  do
9:          $inter \leftarrow intersection(line, \pi)$ 
10:        if  $inter$  not  $0$  and  $s$  and  $next$  not in  $\pi$  then
11:           $safe \leftarrow False$ 
12:          if  $inter$  not  $0$  and  $next$  in  $\pi$  then
13:             $stop \leftarrow True$ 
14:        if  $safe$  then
15:           $valid\_successor \leftarrow next$ 
16:           $s \leftarrow valid\_successor$ 
```
