Algorithm 2 function $isin(c_p, h_p, \beta)$

1: $r_p =$ radius(c_p, h_p, β)
2: **if** $(isinAABB(c_p, r_p))$ **then**
3:     $d_p \leftarrow dist(c_p)$
4:    **if** $(d_p \geq r_p)$ **then**
5:      $c_p(x_w, y_w, z_w) \rightarrow c_p(x_i, y_i, z_i)$
6:      $n = 1$
7:     **while** $(n < N)$ **do**
8:       **if** $((Z[n{-}1][y_i][x_i] > z_i)$ && $(z_i > Z[n][y_i][x_i])$ && $(x_i < R$ && $y_i < R))$ **then**
9:        return TRUE
10:       **end if**
11:       $n = n + 2$
12:     **end while**
13:    **end if**
14: **end if**
15: return FLASE