

Algorithm 5 Introspective IncrementalQuickSort

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1: procedure IQS( $A, S, k$ )
2:   while  $k < S.top()$  do
3:      $pid_x \leftarrow \text{random}(k, S.top() - 1)$ 
4:      $pid_x \leftarrow \text{partition}(A_{k, S.top()-1}, pid_x)$ 
5:      $m \leftarrow S.top() - k$ 
6:      $\alpha \leftarrow 0.3$ 
7:      $r \leftarrow -1$ 
8:     if  $pid_x < k + \alpha m$  then
9:        $r \leftarrow pid_x$ 
10:       $pid_x \leftarrow \text{pick}(A_{r+1, S.top()-1})$ 
11:       $pid_x \leftarrow \text{partition}(A_{r+1, S.top()-1}, pid_x)$ 
12:     else if  $pid_x > S.top() - \alpha m$  then
13:        $r \leftarrow pid_x$ 
14:        $pid_x \leftarrow \text{pick}(A_{k, pid_x})$ 
15:        $pid_x \leftarrow \text{partition}(A_{k, r}, pid_x)$ 
16:        $r \leftarrow -1$ 
17:       S.push( $pid_x$ )
18:       if  $r > -1$  then
19:         S.push( $r$ )
20:     S.pop()
21:   return  $A_k$ 

```

usa una función
obtenida al
partition de IQS