

This is a simple example for algorithm

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**Algorithm 1:** Restriction

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**Data:**  $G = (X, U)$  such that  $G^{tc}$  is an order.

**Result:**  $G' = (X, V)$  with  $V \subseteq U$  such that  $G'^{tc}$  is an interval order.

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1 begin
2    $V \leftarrow U$ 
3    $S \leftarrow \emptyset$ 
4   for  $x \in X$  do
5      $NbSuccInS(x) \leftarrow 0$ 
6      $NbPredInMin(x) \leftarrow 0$ 
7      $NbPredNotInMin(x) \leftarrow |ImPred(x)|$ 
8   end
9   for  $x \in X$  do
10    if  $NbPredInMin(x) = 0$  and  $NbPredNotInMin(x) = 0$ 
11      then
12         $AppendToMin(x)$ 
13      end
14    end
15    while  $S \neq \emptyset$  do
16      remove  $x$  from the list of  $T$  of maximal index
17      while  $|S \cap ImSucc(x)| \neq |S|$  do
18        for  $y \in S - ImSucc(x)$  do
19          { remove from  $V$  all the arcs  $zy : \}$ 
20          for  $z \in ImPred(y) \cap Min$  do
21            remove the arc  $zy$  from  $V$ 
22             $NbSuccInS(z) \leftarrow NbSuccInS(z) - 1$ 
23            move  $z$  in  $T$  to the list preceding its present list
24            {i.e. If  $z \in T[k]$ , move  $z$  from  $T[k]$  to  $T[k - 1]$ }
25          end
26           $NbPredInMin(y) \leftarrow 0$ 
27           $NbPredNotInMin(y) \leftarrow 0$ 
28           $S \leftarrow S - \{y\}$ 
29           $AppendToMin(y)$ 
30        end
31      end
32       $RemoveFromMin(x)$ 
33    end
34  end

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