

Additional file 1 — Algorithm 2: Pseudo-code of the CLUS-HMC algorithm for top-down induction of HMC trees

Algorithm 2 Top-down induction of CLUS-HMC

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1: procedure CLUSHMC( $G, U$ ) returns tree
2: if stop( $U$ ) then
3:   return leaf(Prototype( $U$ ))
4: else
5:    $(t^*, h^*, \mathcal{P}^*) = (null, 0, \emptyset)$ 
6:   for each possible Boolean test  $t$  according to the values of attribute  $X$  in dataset  $U$  do
7:      $\mathcal{P} = \{U_1, U_2\}$  partition induced by  $t$  on  $U$ 
8:      $h = Var'(U) - \frac{|U_1| \cdot Var'(U_1) + |U_2| \cdot Var'(U_2)}{|U|}$ 
9:     if  $(h > h^*)$  then
10:       $(t^*, h^*, \mathcal{P}^*) = (t, h, \mathcal{P})$ 
11:    end if
12:  end for
13:   $tree_1 = CLUSHMC(U_1)$ 
14:   $tree_2 = CLUSHMC(U_2)$ 
15:  return node( $t^*, tree_1, tree_2$ )
16: end if
```
