
Algorithm 1 Bloom filter k -mer counting algorithm

```
1:  $B \leftarrow$  empty Bloom filter of size  $m$ 
2:  $T \leftarrow$  hash table
3: for all reads  $s$  do
4:   for all  $k$ -mers  $x$  in  $s$  do
5:      $x_{rep} \leftarrow \min(x, \text{revcomp}(x))$  //  $x_{rep}$  is the canonical  $k$ -mer for  $x$ 
6:     if  $x_{rep} \in B$  then
7:       if  $x_{rep} \notin T$  then
8:          $T[x_{rep}] \leftarrow 0$ 
9:       else
10:        add  $x_{rep}$  to  $B$ 
11: for all reads  $s$  do
12:   for all  $k$ -mers  $x$  in  $s$  do
13:      $x_{rep} \leftarrow \min(x, \text{revcomp}(x))$ 
14:     if  $x_{rep} \in T$  then
15:        $T[x_{rep}] \leftarrow T[x_{rep}] + 1$ 
16: for all  $x \in T$  do
17:   if  $T[x] = 1$  then
18:     remove  $x$  from  $T$ 
```
