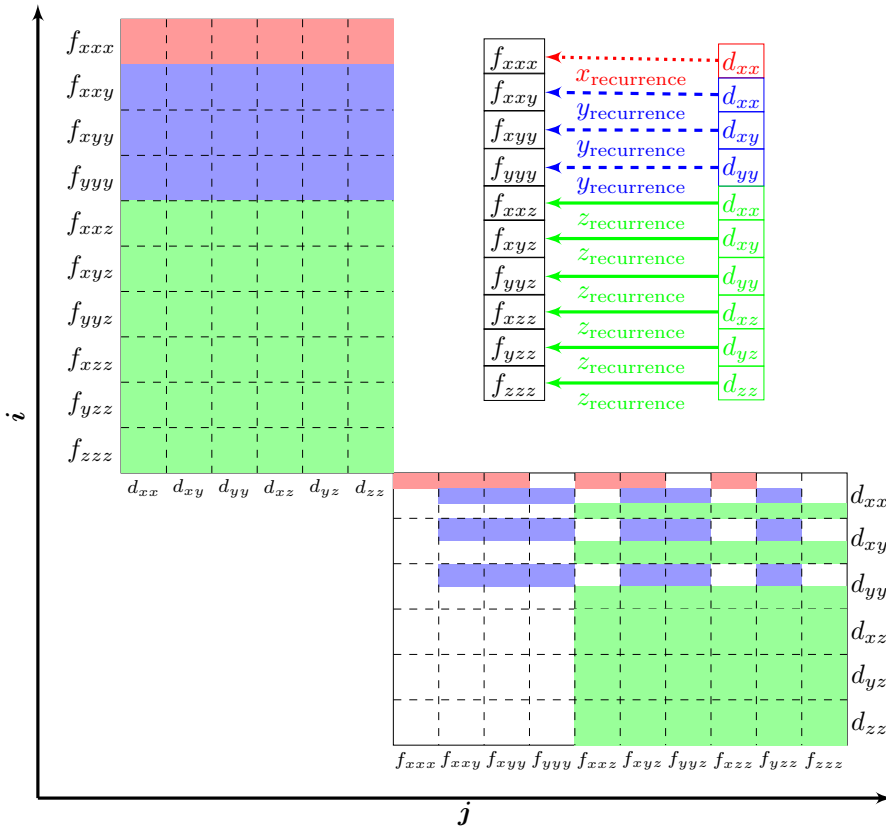


$$\{i+e_\xi, j\}' \leftarrow \{i, j+e_\xi\} \text{ and/or } i_\xi \text{ and/or } j_\xi$$



### Algorithm ( $i$ major)

```

 $w_{i_\xi} = 1$ 
 $w_i = 1$ 
 $w_{j_\xi} = 0$ 
 $w_j = 0$ 
do  $n_j = |j|, 0, -1$ 
  do  $n'_j = n_j, 0, -1$ 
     $w_{j_\xi} = w_{j_\xi} + 1$ 
     $w_j = w_j + 1$ 
     $\{w_{j_\xi}, w_i\} \xrightarrow{x\text{-recurrence}} \{w_j, w_{i_\xi}\}'$  with  $i_x = |i|$  and  $j_x = n'_j$ 
  end do
   $w_{j_\xi} = w_{j_\xi} + 1$ 
end do
do  $n_i = 0, |i|$ 
   $w_{i_\xi} = w_{i_\xi} + 1$ 
   $w_{j_\xi} = 1$ 
   $w_j = 0$ 
  do  $n_j = |j|, 0, -1$ 
    do  $n'_j = 0, n_j$ 
       $w_{j_\xi} = w_{j_\xi} + 1$ 
       $w_j = w_j + 1$ 
       $\{w_{j_\xi}, w_i + n_i\} \xrightarrow{y\text{-recurrence}} \{w_j, w_{i_\xi}\}'$  with  $i_y = n_i$  and  $j_y = n'_j$ 
    end do
     $w_{j_\xi} = w_{j_\xi} + 1$ 
  end do
   $w_{j_\xi} = w_{j_\xi} + 1$ 
end do
do  $n_i = 0, |i|$ 
  do  $n'_i = 0, |i| - n_i$ 
     $w_i = w_i + 1$ 
     $w_{i_\xi} = w_{i_\xi} + 1$ 
     $w_{j_\xi} = |j| + 2$ 
     $w_j = 0$ 
    do  $n_j = 0, |j|$ 
      do  $n'_j = n_j, |j|$ 
         $w_{j_\xi} = w_{j_\xi} + 1$ 
         $w_j = w_j + 1$ 
         $\{w_{j_\xi}, w_i\} \xrightarrow{z\text{-recurrence}} \{w_j, w_{i_\xi}\}'$  with  $i_z = n_i$ , and  $j_z = n_j$ 
      end do
    end do
  end do
end do
end do

```

### Algorithm ( $j$ major)

```

 $w_{j_\xi} = 0$ 
 $w_j = 0$ 
do  $n_j = |j|, 0, -1$ 
  do  $n'_j = 0, n_j$ 
     $w_{j_\xi} = w_{j_\xi} + 1$ 
     $w_j = w_j + 1$ 
     $w_i = 1$ 
     $w_{i_\xi} = 1$ 
     $\{w_i, w_{j_\xi}\} \xrightarrow{x\text{-recurrence}} \{w_{i_\xi}, w_j\}'$  with  $i_x = |i|$  and  $j_x = n_j - n'_j$ 
  end do
  do  $n_i = 0, |i|$ 
     $w_{i_\xi} = w_{i_\xi} + 1$ 
     $\{w_i + n_i, w_{j_\xi} + 1\} \xrightarrow{y\text{-recurrence}} \{w_{i_\xi}, w_j\}'$  with  $i_y = n_i$  and  $j_y = n'_j$ 
  end do
   $w_i = 0$ 
  do  $n_i = 0, |i|$ 
    do  $n'_i = 0, |i| - n_i$ 
       $w_i = w_i + 1$ 
       $w_{i_\xi} = w_{i_\xi} + 1$ 
       $\{w_i, w_{j_\xi} + n_j + 2\} \xrightarrow{z\text{-recurrence}} \{w_{i_\xi}, w_j\}'$  with  $i_z = n_i$  and  $j_z = |j| - n_j$ 
    end do
  end do
   $w_{j_\xi} = w_{j_\xi} + 1$ 
end do
end do

```