

```

For i = 1 to N
  For j = 1 to M
    B[i][j] = B[i+1][j-1]
  Endfor
Endfor

```

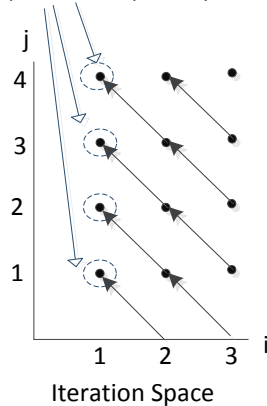
Distance vector: $[1, -1]$
 Direction vector: $[<, >]$

Outer loop carries
 dependency

After loop exchange:
 Direction vector = $[>, <]$

Loop exchange is illegal for
 this loop nest

Can be performed in
 parallel if outer loop is
 performed sequentially



```

For i = 1 to N
  For j = 1 to M
    B[i][j] = B[i-1][j-1]
  Endfor
Endfor

```

Distance vector: $[1, 1]$
 Direction vector: $[<, <]$
 After loop exchange:
 Direction vector = $[<, <]$

Loop exchange is legal for
 this loop nest

Parallelizable i loop
 after loop exchange

