

Cell: 1 ... j ... Q

(either MAP or mean or posterior)

## Output 3D array




Diagram illustrating the selection of the maximum element (8) from the first row of the matrix.

8	2	4	1	1
3	0	8	0	3
1	0	0	0	5
0	0	0	0	0
0	0	11	5	0

$$\begin{bmatrix} 0 & 1 & 0 & 7 & 1 \\ 9 & 4 & 0 & 8 & 0 & 3 \\ 4 & 0 & 0 & 0 & 0 & 5 \\ 0 & 0 & 2 & 0 & 0 & 0 & 0 \\ 2 & 0 & 0 & 0 & 30 & 5 & 0 \\ 9 & 0 & 0 & 10 & 0 & 0 & \ddots \\ 1 & 0 & 19 & 0 & 0 & & \end{bmatrix}$$

S samples  
(matrices)