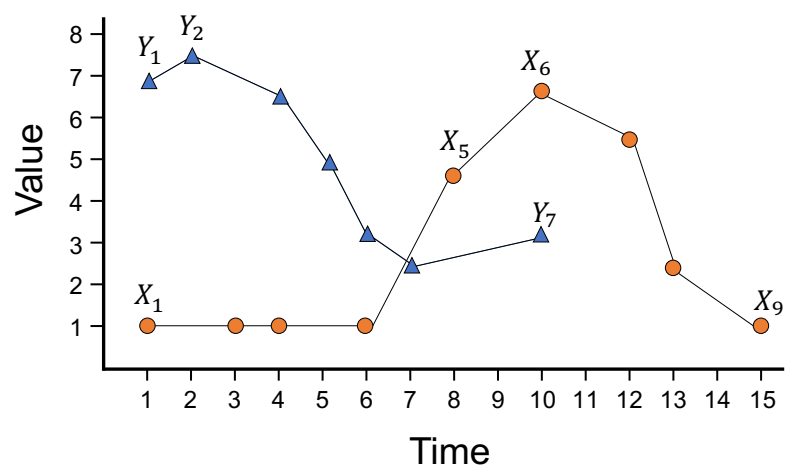
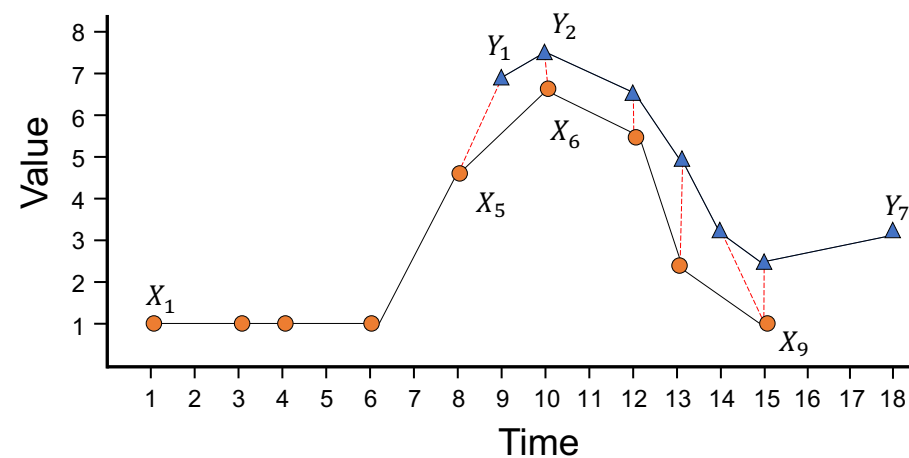


(a)



Aligning sequences
 X and Y

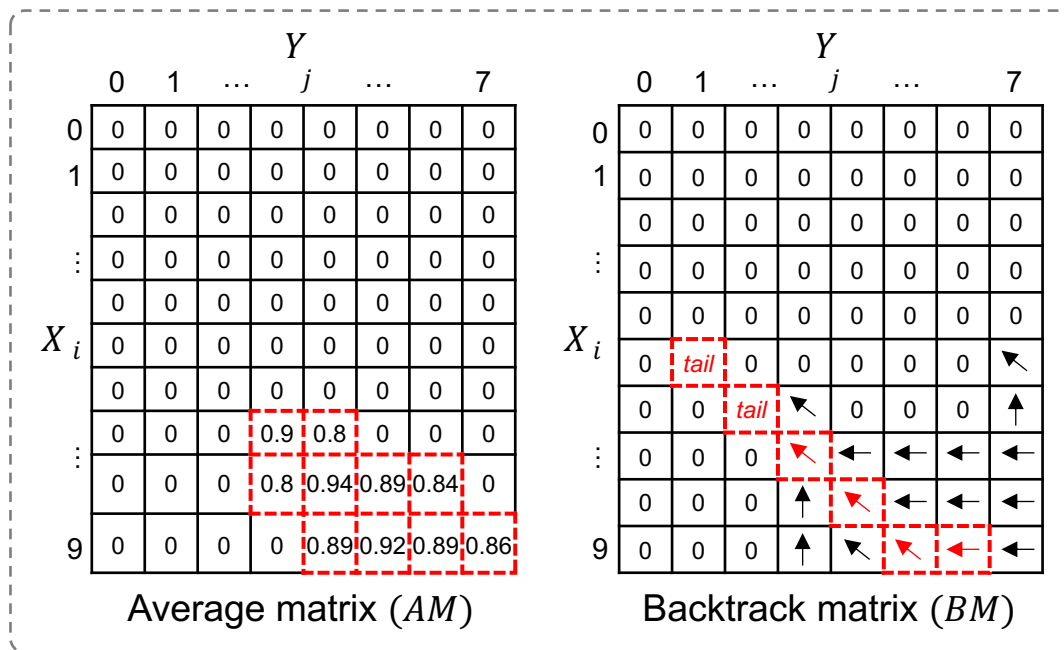


(b)

Input

i	1	2	3	4	5	6	7	8	9
T_X	1	3	4	6	8	10	12	13	15
X	1	1	1	1	5	7	6	2	1
TGS_X	2	1	2	2	2	2	1	2	

j	1	2	3	4	5	6	7
T_Y	1	2	4	5	6	7	10
Y	7	8	7	5	3	2	3
TGS_Y	1	2	1	1	1	3	



Output

The local alignment

i	1	2	3	4	5	6	7	8	9
T_X	1	3	4	6	8	10	12	13	15
X	1	1	1	1	5	7	6	2	1
j	1	2	3	4	5	6	7		
T_Y	1	2	4	5	6	7	10		
Y	7	8	7	5	3	2	3		

The output alignment (length=6)

i	5	6	7	8	9	-
j	1	2	3	4	5	6

Alignment score: **2.3** ($0.89 \times \log_2(6)$)

 $w = 3, p = 0.01$
 $P_{cut} = 0.8$