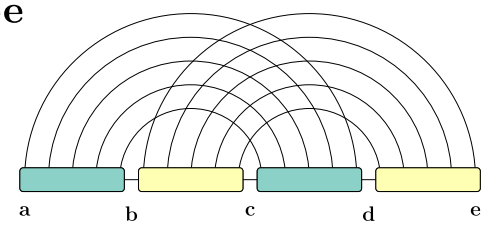
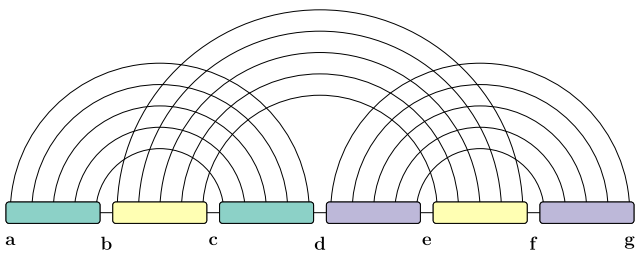
H-type



$$A = \min_{a,b,c,d,e} (C_{\boxtimes}[b, c-1, d, e-1] + C_{\boxtimes}[a, b-1, c, d-1])$$

kissing hairpins



$$A = \min_{a,d,g} B[a, d|d, g])$$

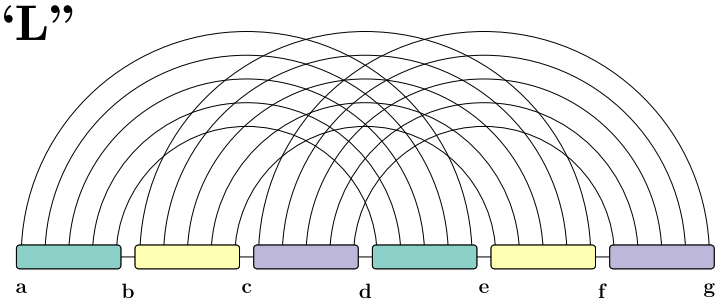
$$B'[a, d|d', g] = \min \begin{cases} B'[a, d-1|d', g], & \text{if } d-1, \notin \{a, d', g\} \\ B[a+1, d-1|d', g] + \Delta G(a, d) & \text{if } \{a+1, d-1\} \cap \{d', g\} = \emptyset \end{cases}$$

$$B[a, d|d', g] = \min \begin{cases} B[a+1, d|d', g], & \text{if } a+1 \notin \{d, d', g\} \\ B'[a, d-1|d', g], & \text{if } d-1, \notin \{a, d', g\} \\ B[a+1, d-1|d', g] + \Delta G(a, d) & \text{if } \{a+1, d-1\} \cap \{d', g\} = \emptyset, \\ C'[d', g|a, d] \end{cases}$$

$$C'[d, g|b, c] = \min \begin{cases} C'[d, g-1|b, c], & \text{if } g-1, \notin \{d, b, c\} \\ C[d+1, g-1|b, c] + \Delta G(d, g) & \text{if } \{d+1, g-1\} \cap \{b, c\} = \emptyset \end{cases}$$

$$C[d, g|b, c] = \min \begin{cases} C[d+1, g|b, c], & \text{if } d+1 \notin \{g, b, c\} \\ C'[d, g-1|b, c], & \text{if } g-1, \notin \{d, b, c\} \\ C[d+1, g-1|b, c] + \Delta G(d, g) & \text{if } \{d+1, g-1\} \cap \{b, c\} = \emptyset, \\ C'_{\boxtimes}[b, c-1, d, g+1-1] \end{cases}$$

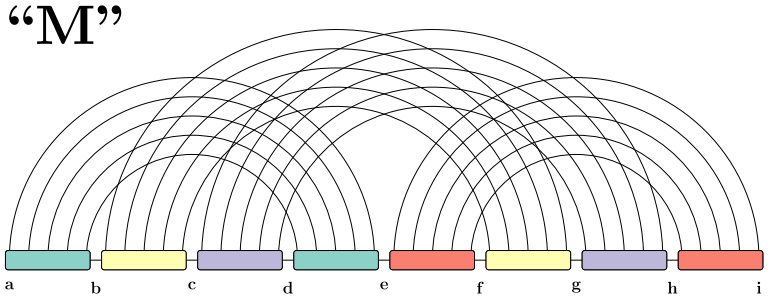
"L"



$$A = \min_{a,c,d,f,g} (B[a, c, d, f] + C_{\boxtimes}[c, d-1, f, g-1])$$

$$B[a, c, d, f] = \min_{b,e} (C_{\boxtimes}[b, c-1, e, f-1] + C_{\boxtimes}[a, b-1, d, e-1])$$

"M"

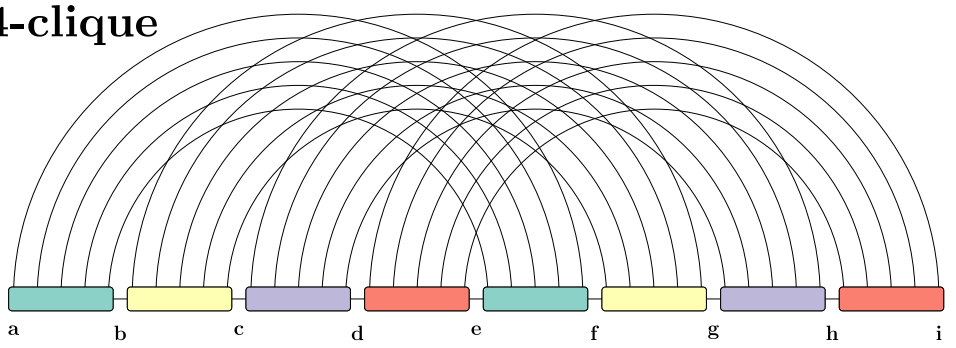


$$A = \min_{a,e,f,h,i} (B[a, e, f, h] + C_{\boxtimes}[e, f-1, h, i-1])$$

$$B[a, e, f, h] = \min_{b,d} (C_{\boxtimes}[a, b-1, d, e-1] + C[b, d, f, h])$$

$$C[b, d, f, h] = \min_{c,g} (C_{\boxtimes}[c, d-1, g, h-1] + C_{\boxtimes}[b, c-1, f, g-1])$$

4-clique

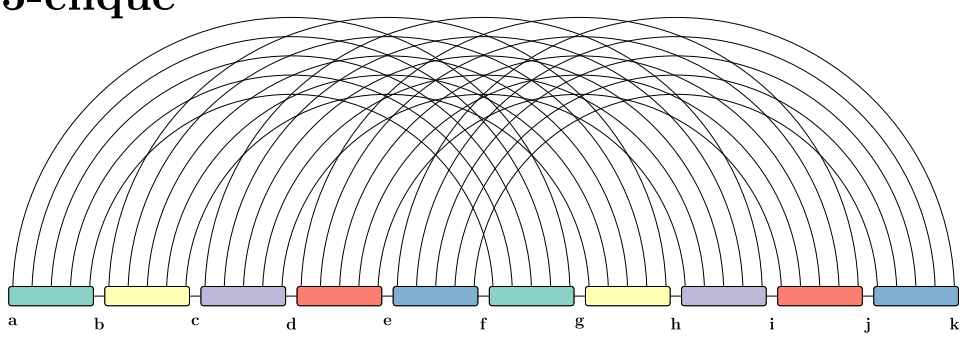


$$A = \min_{a,d,e,h,i} (B[a, d, e, h] + C_{\boxtimes}[d, e-1, h, i-1])$$

$$B[a, d, e, h] = \min_{c,g} (C[a, c, e, g] + C_{\boxtimes}[c, d-1, g, h-1])$$

$$C[a, c, e, g] = \min_{b,f} (C_{\boxtimes}[b, c-1, f, g-1] + C_{\boxtimes}[a, b-1, e, f-1])$$

5-clique



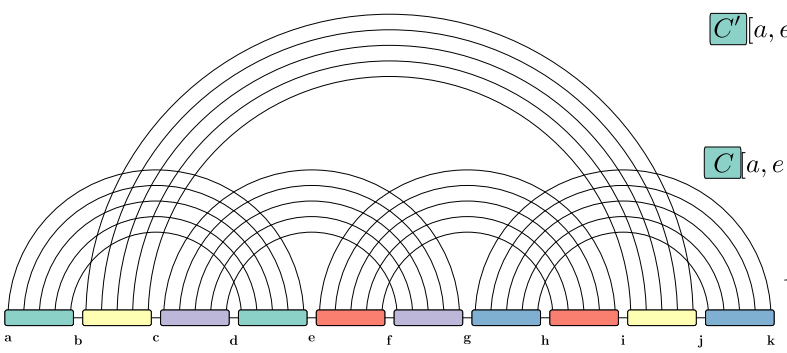
$$A = \min_{a,e,f,j,k} (B[a, e, f, j] + C_{\boxtimes}[e, f-1, j, k-1])$$

$$B[a, e, f, j] = \min_{d,i} (C[a, d, f, i] + C_{\boxtimes}[d, e-1, i, j-1])$$

$$C[a, d, f, i] = \min_{b,g} (D[b, d, g, i] + C_{\boxtimes}[a, b-1, f, g-1])$$

$$D[b, d, g, i] = \min_{c,h} (C_{\boxtimes}[c, d-1, h, i-1] + C_{\boxtimes}[b, c-1, g, h-1])$$

5-cycle



$$A = \min_{a,g,h,j,k} (B[a, g, h, j] + C_{\boxtimes}[g, h-1, j, k-1])$$

$$B[a, g, h, j] = \min_{e,f,i} (C_{\boxtimes}[e, f-1, h, i-1] + C[a, e|f, g, i, j])$$

$$C'[a, e|f, g, i, j] = \min \begin{cases} C'[a, e-1|f, g, i, j], & \text{if } e-1, \notin \{a, f, g, i, j\} \\ C[a+1, e-1|f, g, i, j] + \Delta G(a, e) & \text{if } \{a+1, e-1\} \cap \{f, g, i, j\} = \emptyset \end{cases}$$

$$C[a, e|f, g, i, j] = \min \begin{cases} C[a+1, e|f, g, i, j], & \text{if } a+1 \notin \{e, f, g, i, j\} \\ C'[a, e-1|f, g, i, j], & \text{if } e-1, \notin \{a, f, g, i, j\} \\ C[a+1, e-1|f, g, i, j] + \Delta G(a, e) & \text{if } \{a+1, e-1\} \cap \{f, g, i, j\} = \emptyset, \\ D'[a, e+1, f, g, i, j] \end{cases}$$

$$D[b, d, f, g, i, j] = \min_{c} (C_{\boxtimes}[c, d-1, f, g-1] + C_{\boxtimes}[b, c-1, i, j-1])$$