

Local Beam Search

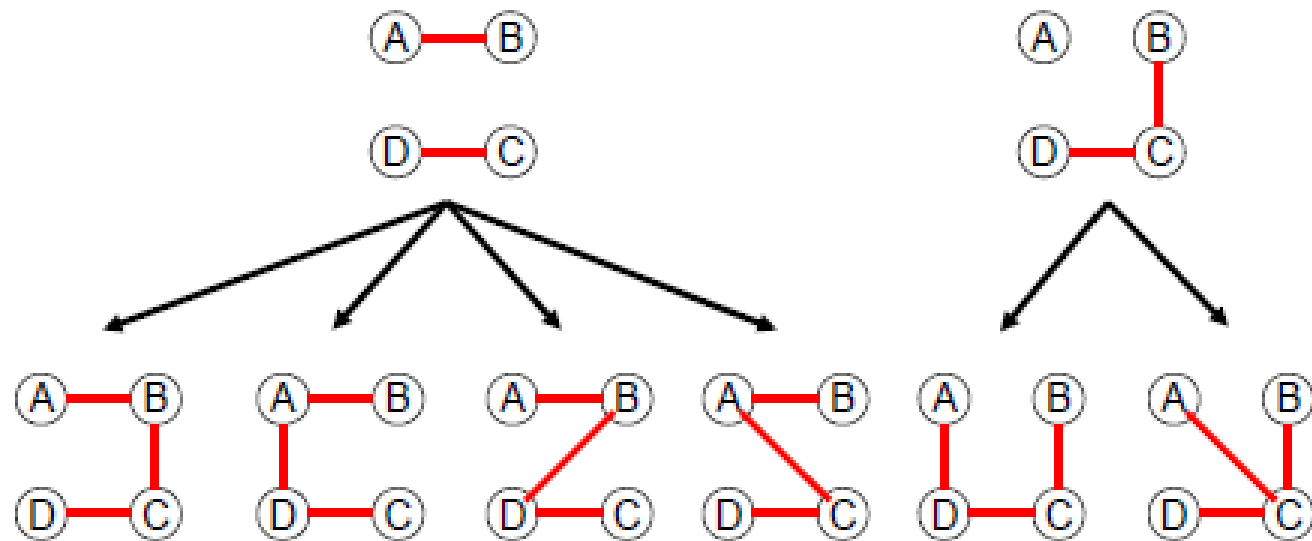
Travelling Salesman Problem



Keeps track of k states rather than just 1.
 $k=2$ in this example. Start with k randomly
generated states.

Local Beam Search Example

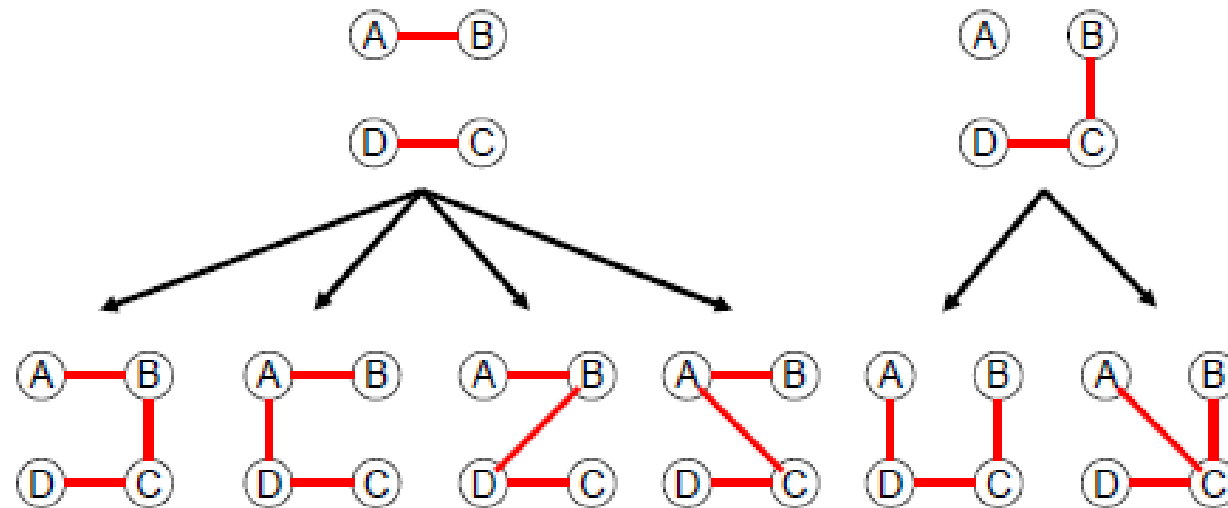
Travelling Salesman Problem ($k=2$)



Generate all successors of all the k states

Local Beam Search Example

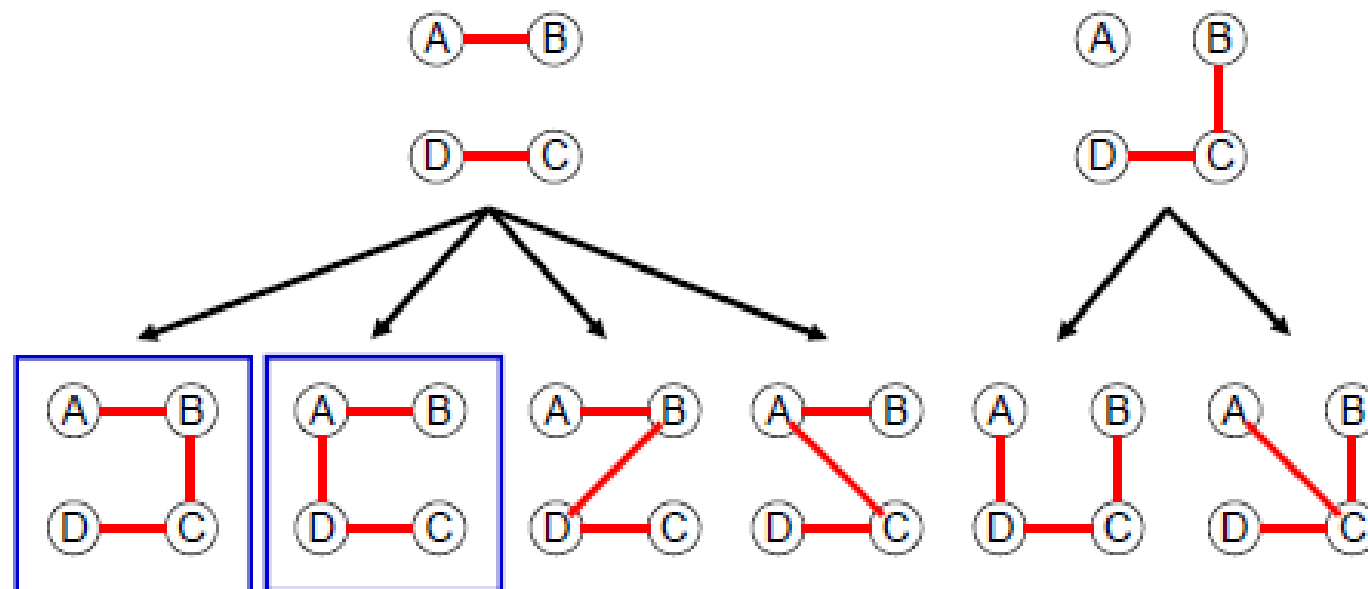
Travelling Salesman Problem ($k=2$)



None of these is a goal state so we continue

Local Beam Search Example

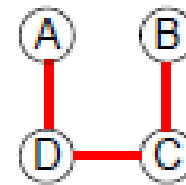
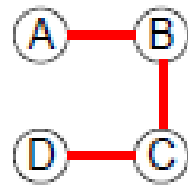
Travelling Salesman Problem ($k=2$)



Select the best k successors from the
complete list

Local Beam Search Example

Travelling Salesman Problem ($k=2$)



Repeat the process until goal found