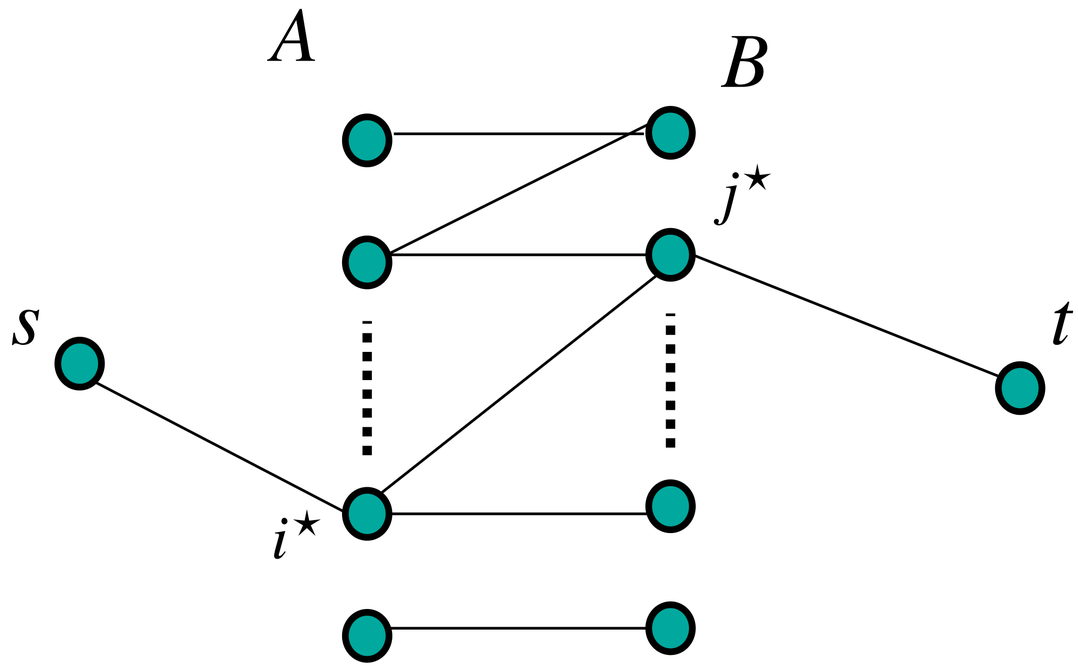
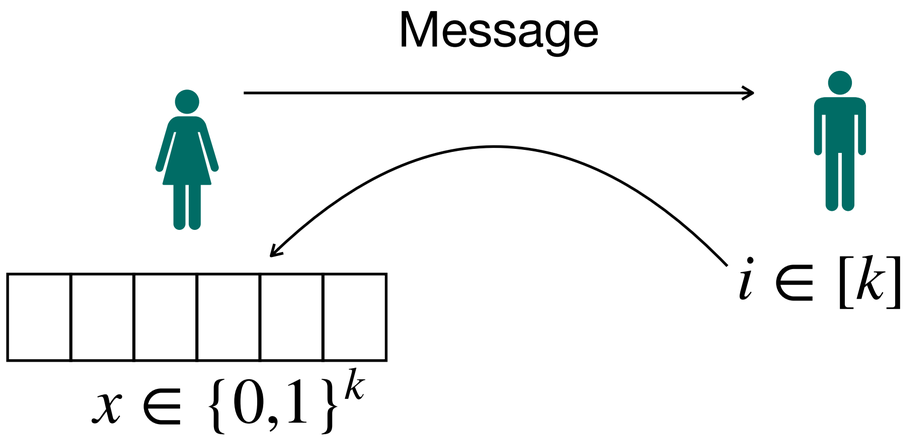
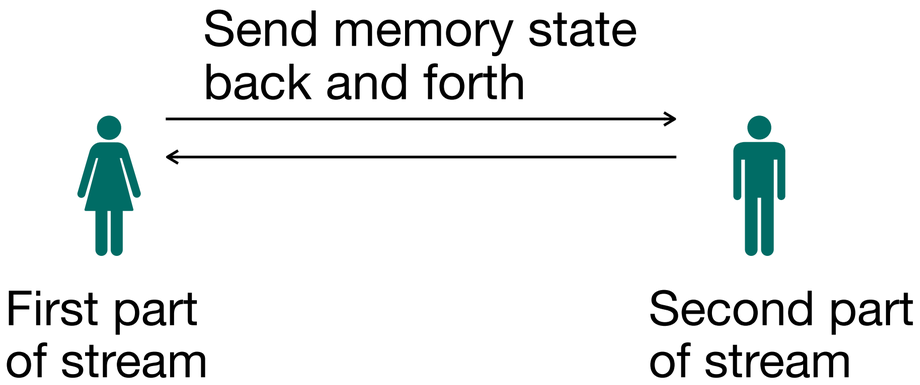
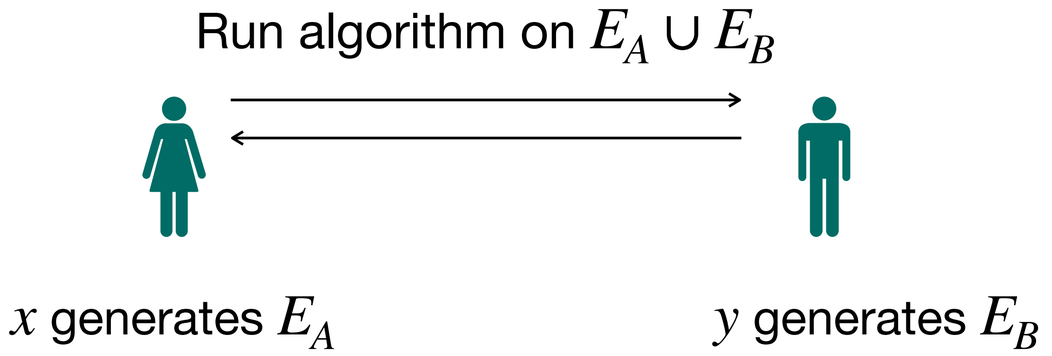
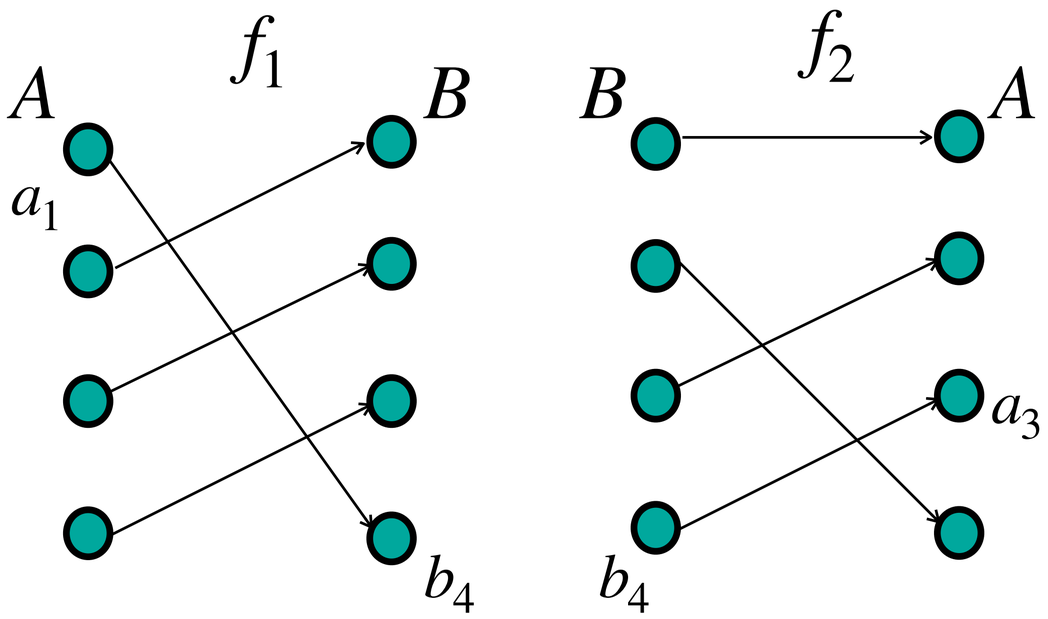

A
B
$j^\star$
s
t
$i^\star$

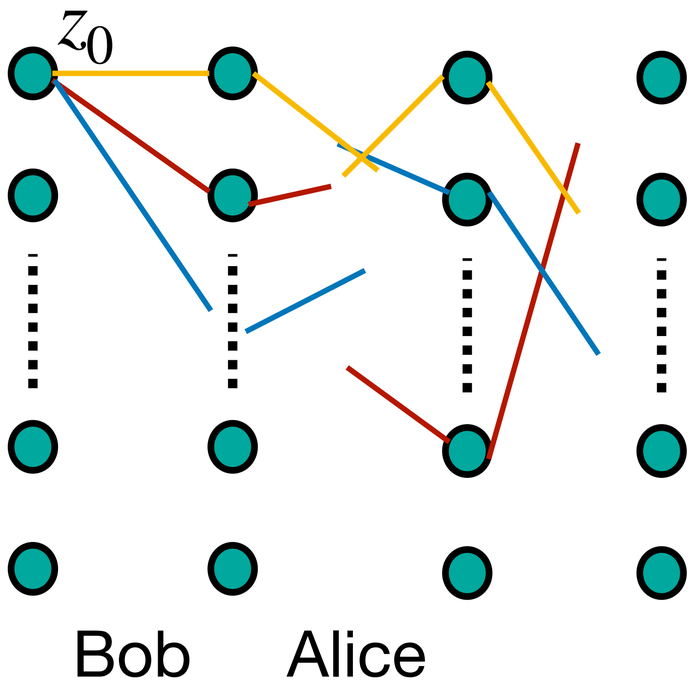

Message
$i \in [k]$
$x \in \{0,1\}^k$

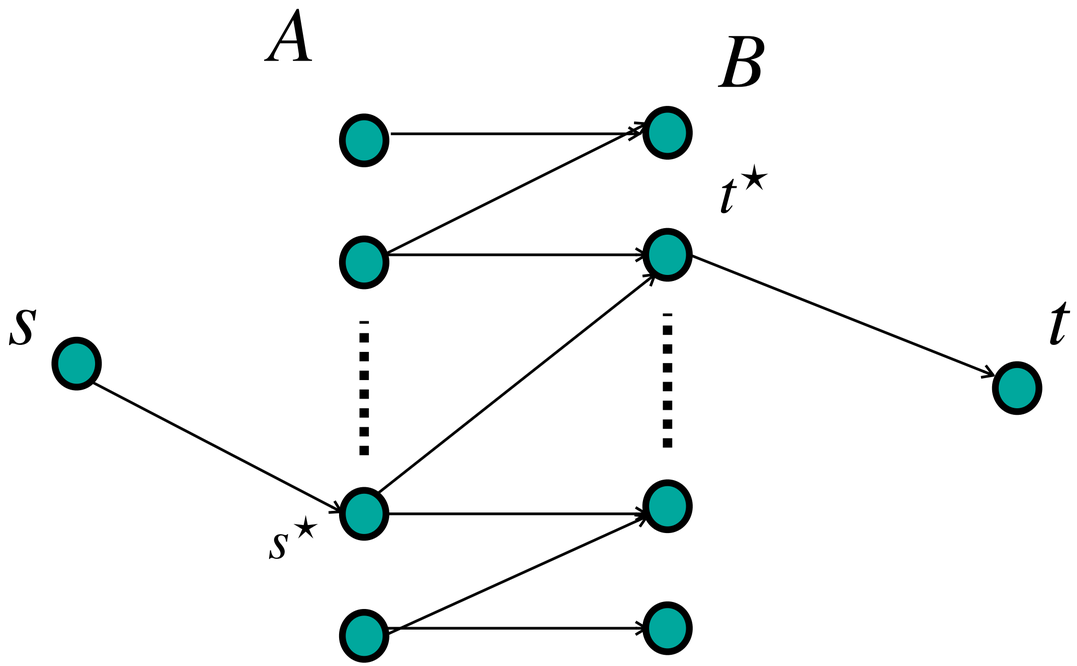

Send memory state
back and forth
First part
of stream
Second part
of stream

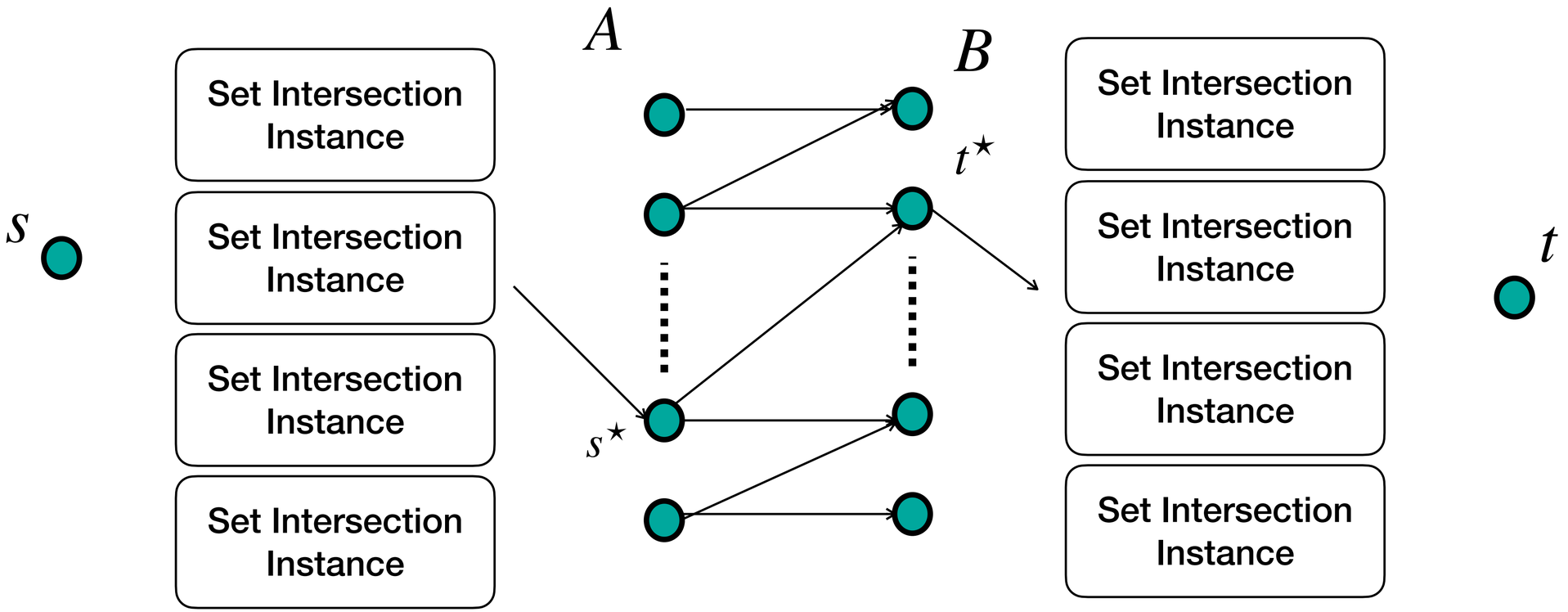

Run algorithm on $E_A \cup E_B$
x generates E_A
y generates E_B

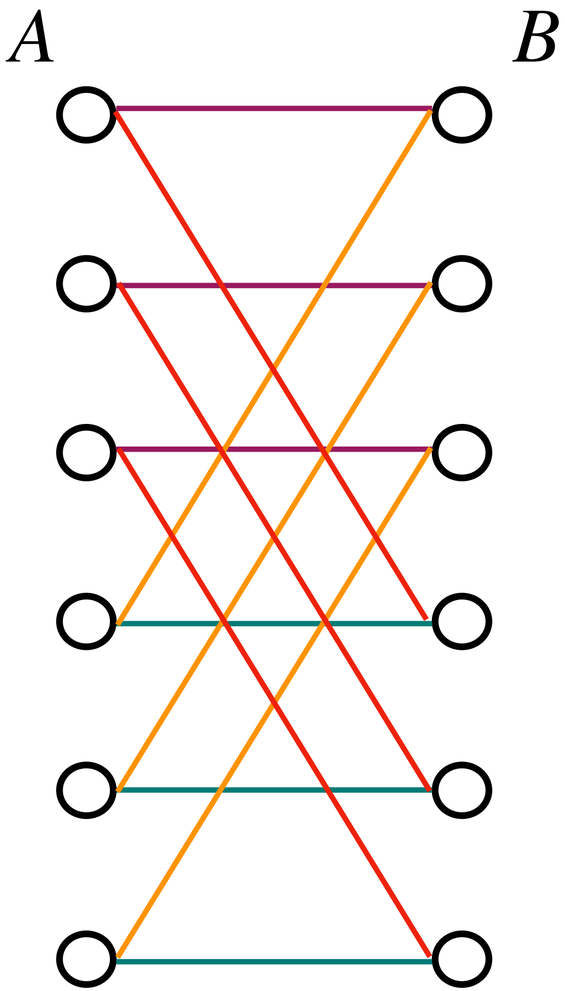

Alice
Messages
Bob
$f_1 : A \to B$
$f_2 : B \to A$


f_1
A
B
a_1
b_4
f_2
B
A
a_3
b_4

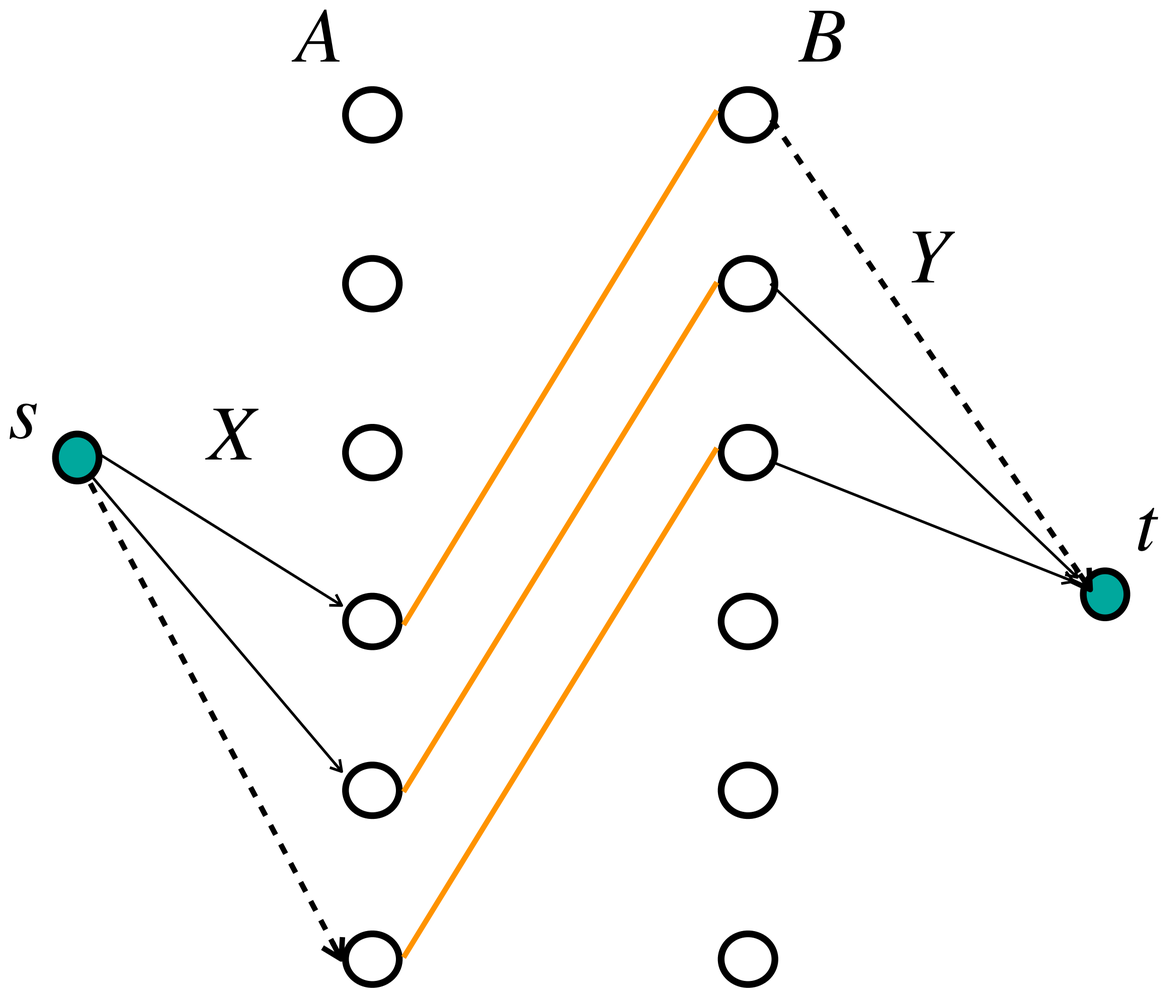

z_0
Bob
Alice

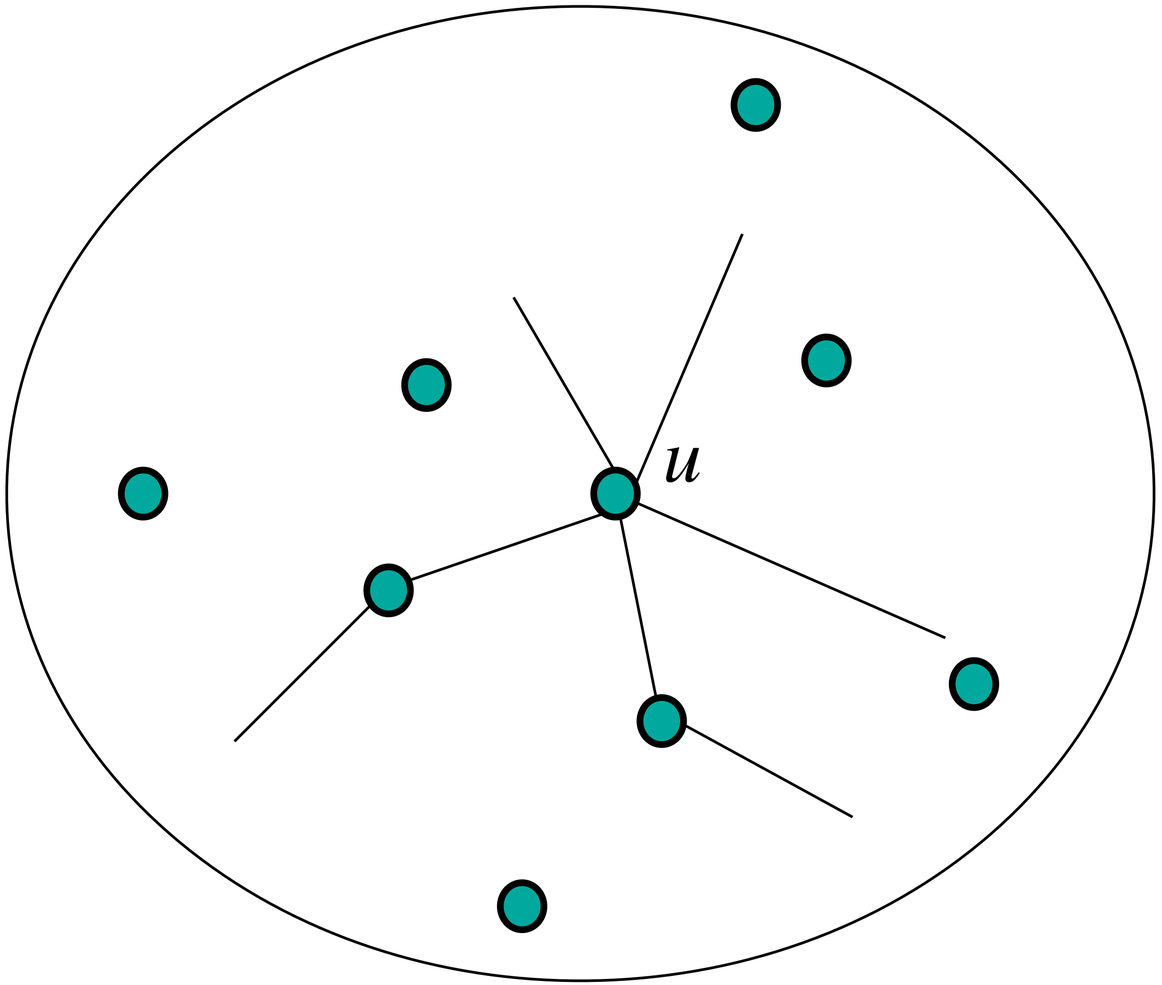

A
B
$t^\star$
s
t
$s^\star$


s
Set Intersection Instance
Set Intersection Instance
Set Intersection Instance
Set Intersection Instance
A
B
$t^\star$
$s^\star$
Set Intersection Instance
Set Intersection Instance
Set Intersection Instance
Set Intersection Instance
t

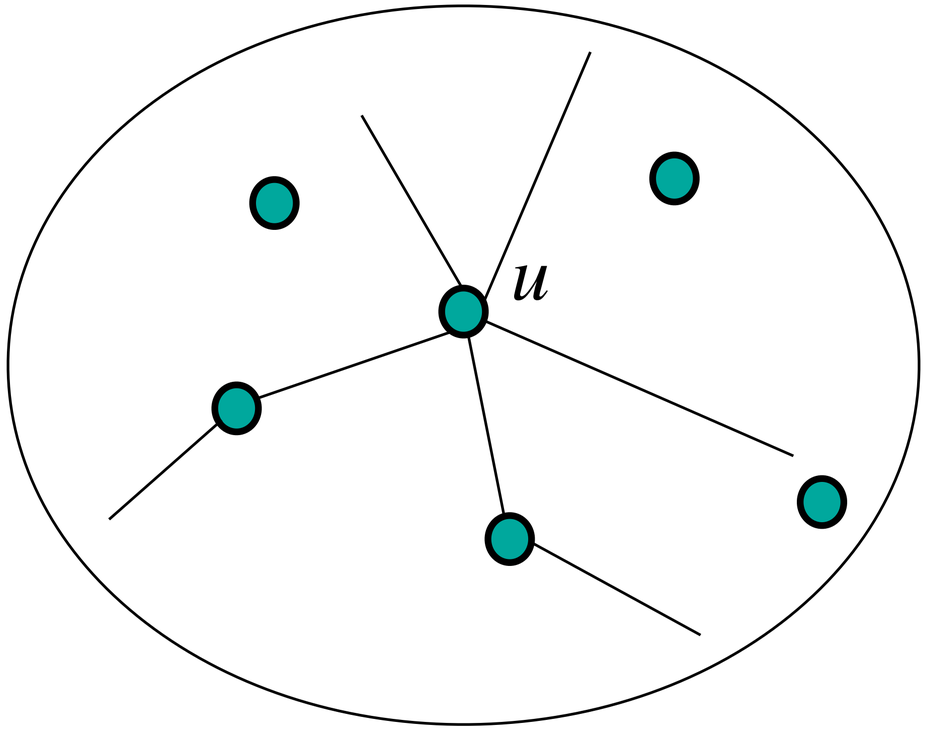


$q = 4, p = 3$

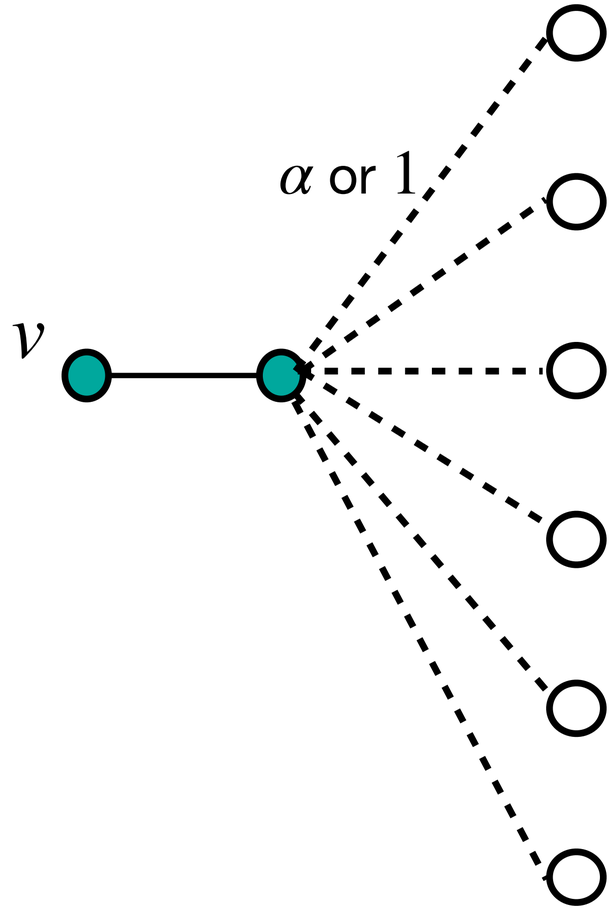

A
B
Y
s
X
t



r-hop neighborhood



$(r-1)$-hop neighborhood


α or 1
v