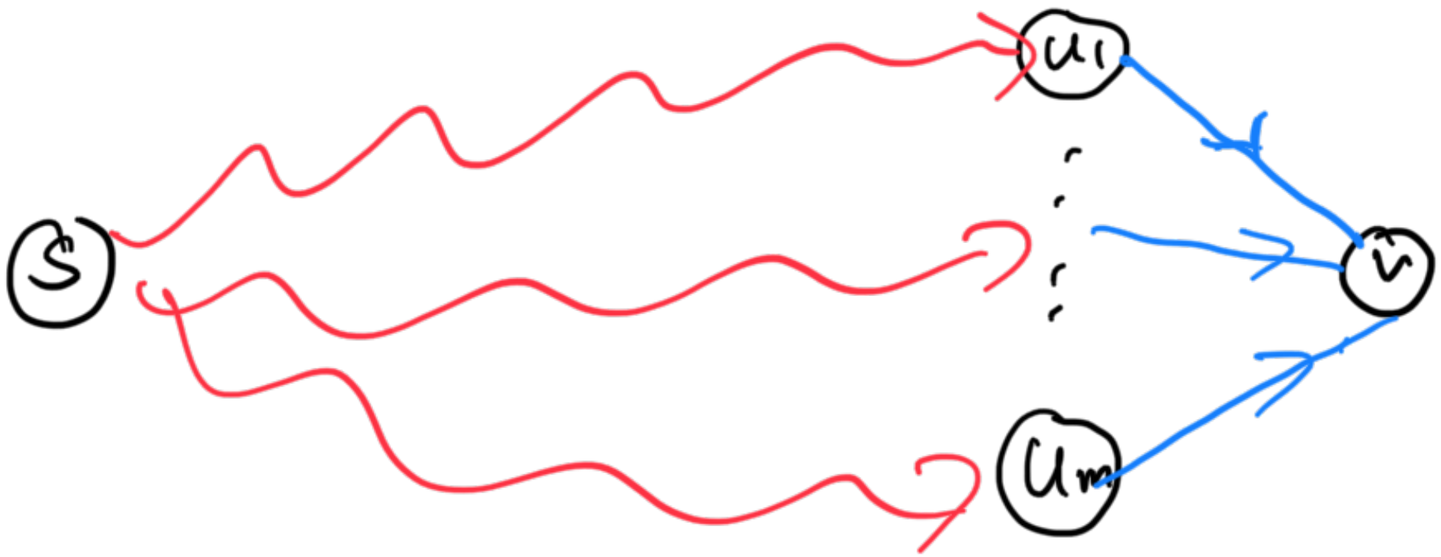
Spring 2022, Lecture 12

$(u_1 \cdots u_m)$ v



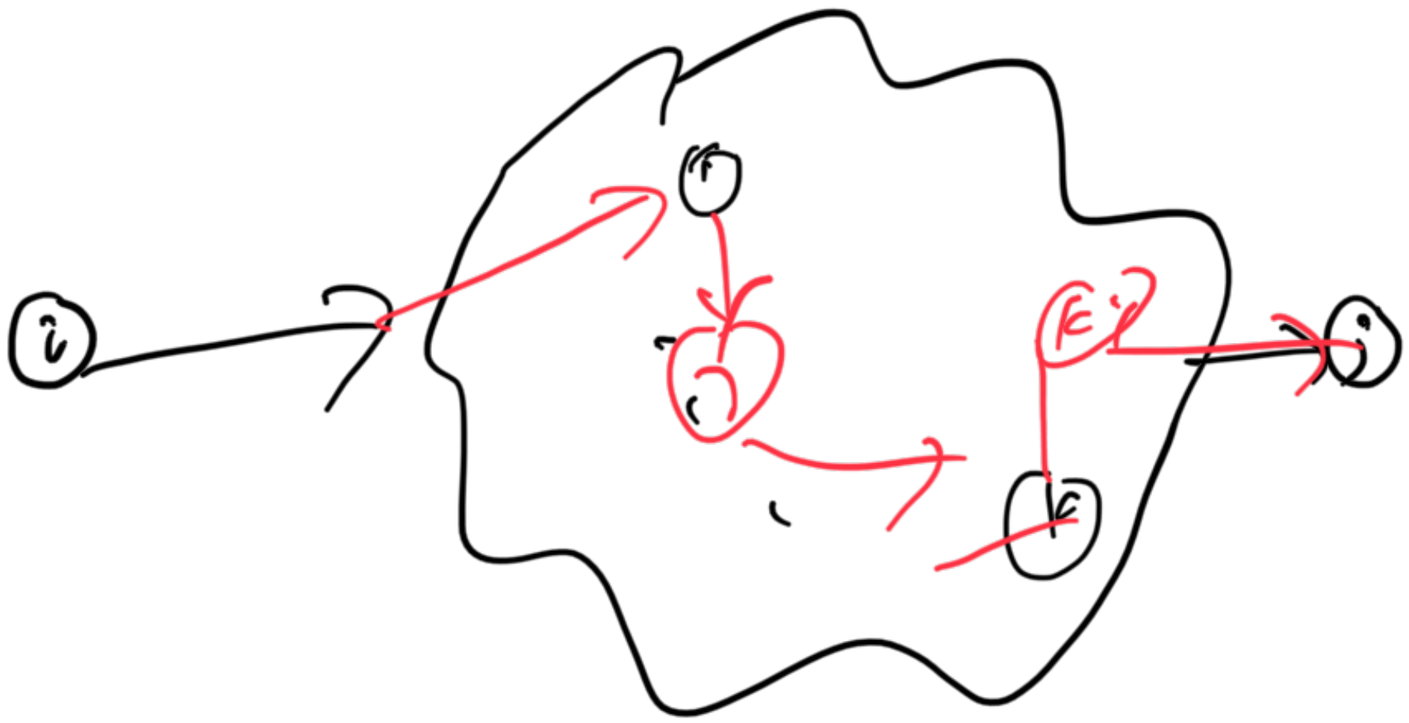
$d[u_1] \cdots d[u_m]$

$d[v]$

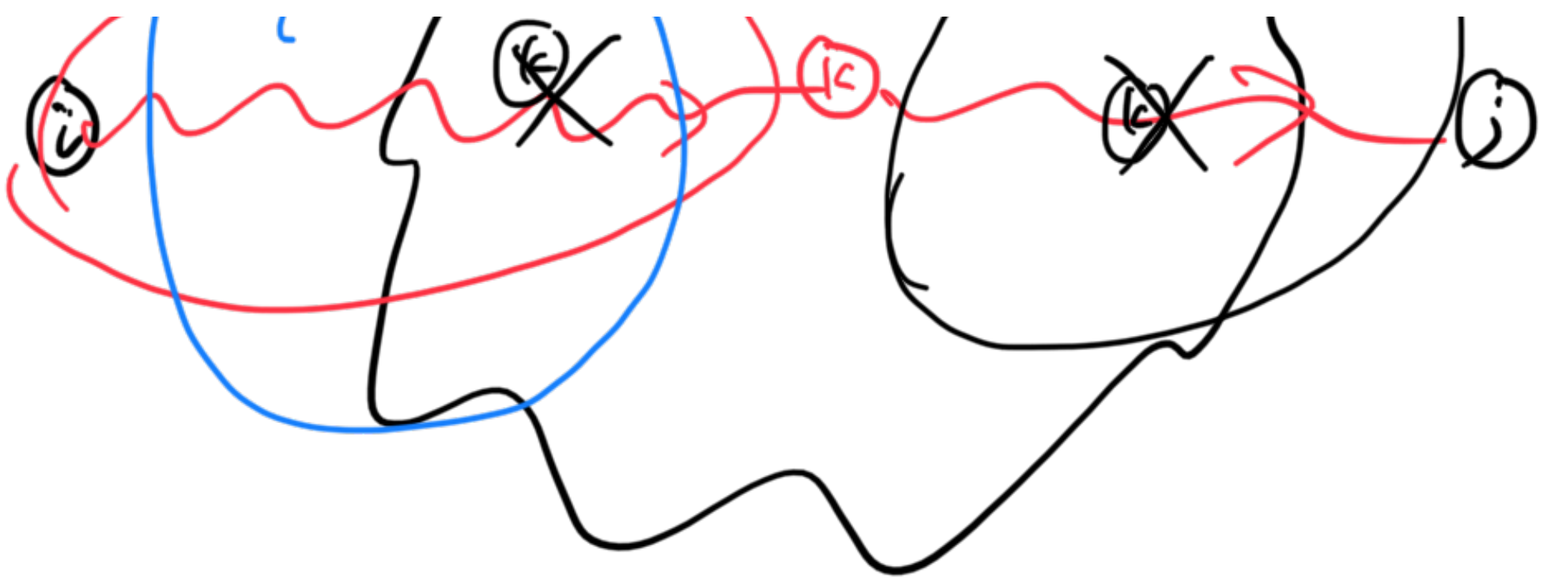
$$d[v] = \min_i \{ d[u_i] + w(u_i, v) \}$$

~~$d^{(k)}[v]$~~

$d^{(n)}_{ij}$ $k \in n$



$$w_{ij} = d^{(0)}_{ij} \geq d^{(1)}_{ij} \cdots \geq d^{(k)}_{ij} \geq d^{(k+1)}_{ij} \cdots \geq d^{(n)}_{ij} = d_{ij}$$



$$d_{ij}^{(k)} = d_{ik}^{(k-1)} + d_{kj}^{(k-1)}$$

$$d_{ij}^{(k-1)}$$