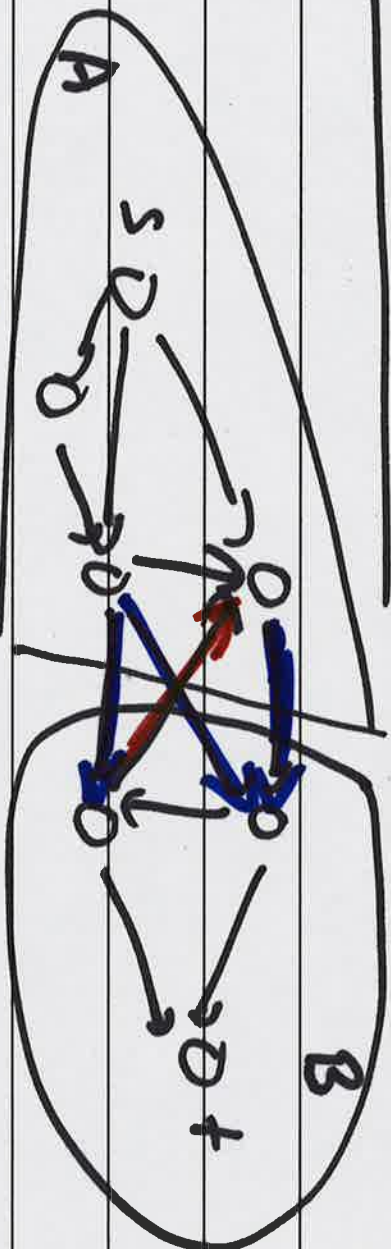


Flow value Lemma



→ A to B

← B to A

$$v(f) = \sum_{e \in E} f(e) = \sum_{v \in A} \left(\sum_{e \in E} f(e) - \sum_{e \in E} f(e) \right)$$

< by flow conservation >

$$= \sum_{e \in E} f(e) = \sum_{e \in E} f(e)$$

$e \in A$

$e \in A$