Overview of min cut/max flow
Min Cut problem

Directed weighted graph
Min Cut problem

Cut:

\[ S = \{ \text{source, node 1} \} \]
\[ T = \{ \text{sink, node 2, node 3} \} \]
Min Cut problem

- **Task**: Compute cut with minimum cost

**Cut**:
- $S = \{\text{source, node 1}\}$
- $T = \{\text{sink, node 2, node 3}\}$
- $\text{Cost}(S,T) = 1 + 1 = 2$
Maxflow algorithm

\[ value(flow) = 0 \]
Maxflow algorithm

\[ \text{value(flow)} = 0 \]
Maxflow algorithm

\[ \text{value(flow)} = 0 \]
Maxflow algorithm

value(flow) = 0
Maxflow algorithm

\[ value(\text{flow}) = 1 \]
Maxflow algorithm

value(flow) = 1
Maxflow algorithm

\[
\text{value(flow)} = 1
\]
Maxflow algorithm

\[ \text{value(flow)} = 1 \]
Maxflow algorithm

\[ \text{value(flow)} = 2 \]
Maxflow algorithm

\[ \text{value(flow)} = 2 \]
Maxflow algorithm

\[ \text{value(flow)} = 2 \]