Which flow algorithm to use?

- Generic augmenting path: $O(m \text{val}(f^*)) = O(mn)$.
- Capacity scaling: $O(m^2 \log C) = O(m^2)$.
- Shortest augmenting path: $O(mn^2)$.

For unit capacity simple graphs shortest augmenting path can be implemented in time $O(m\sqrt{n})$. 