

$$|f| \leq c(S, T)$$



f is max-flow in G \rightleftarrows residue network G_f has no augmenting path $\rightleftarrows |f| = c(S, T)$ for some cut (S, T)

augmenting f with f_p increases f

net flow across a cut equals $|f|$

flow on augmenting path f_p is a flow with value $|c_f(p)|$

$$|f \uparrow f'| = |f| + |f'|$$