

Second-Order Systems

Characteristic eq: $as^2 + bs + c = 0$, $a > 0$, Roots s_1 and s_2 .

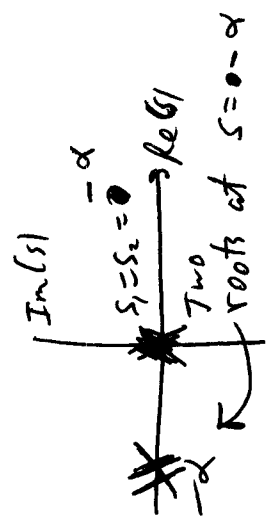
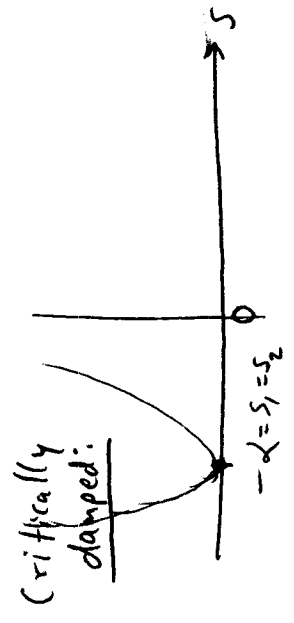
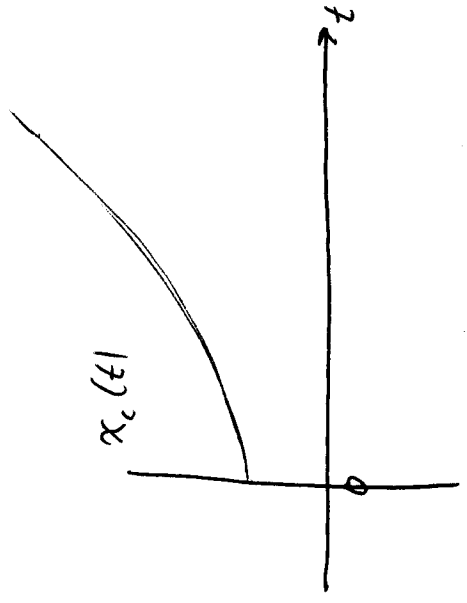
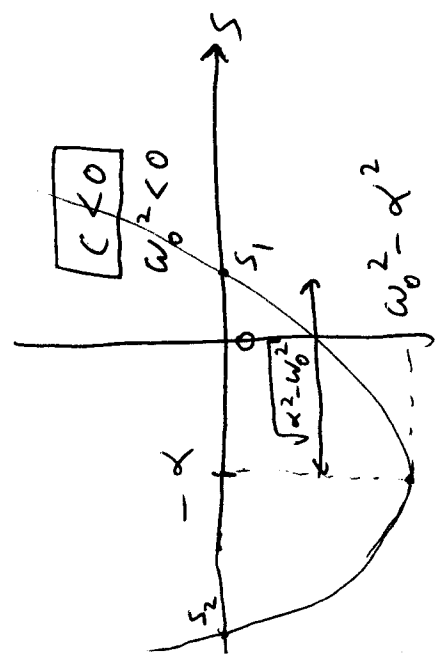
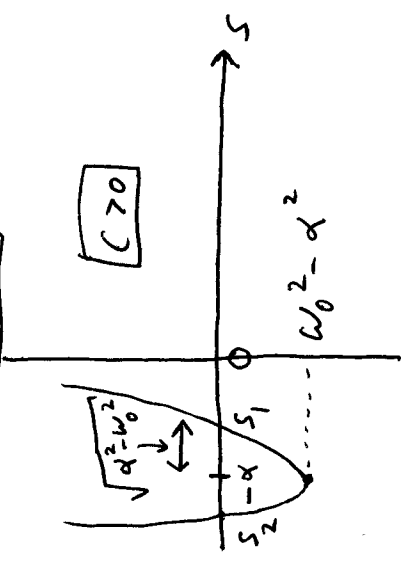
Overdamped

Underdamped: $c > 0$ and $c < 0$ are different.

Char. Eq.

S-plane

Time response



Under damped: 3 cases: $\alpha < 0$, $\alpha = 0$, $\alpha > 0$.

