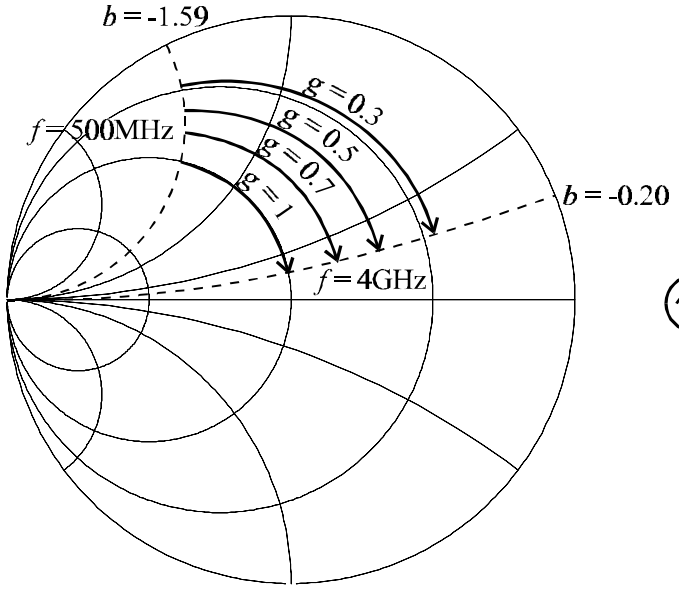
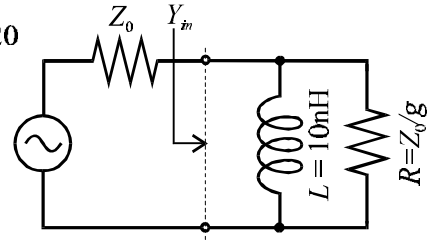
Parallel Connection of R and L Elements (Smith Chart)

- parallel connection of R and L elements

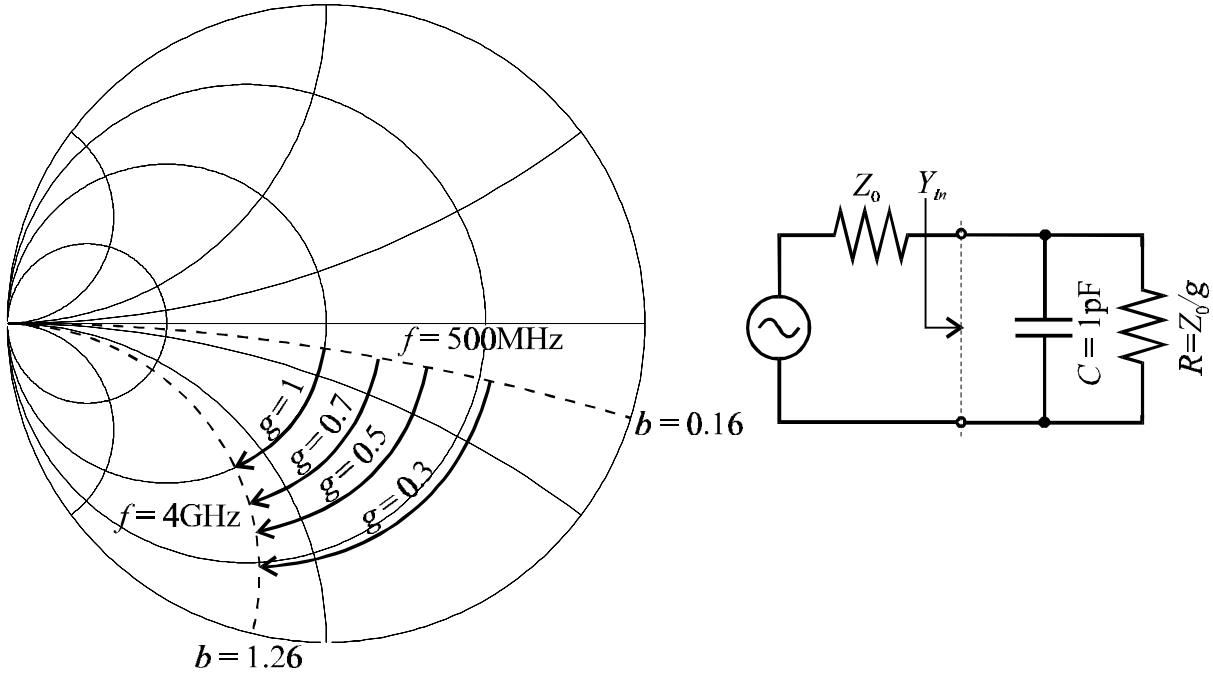
$$y_{in}(w_L) = g - j\frac{1}{w_L L Y_0}$$





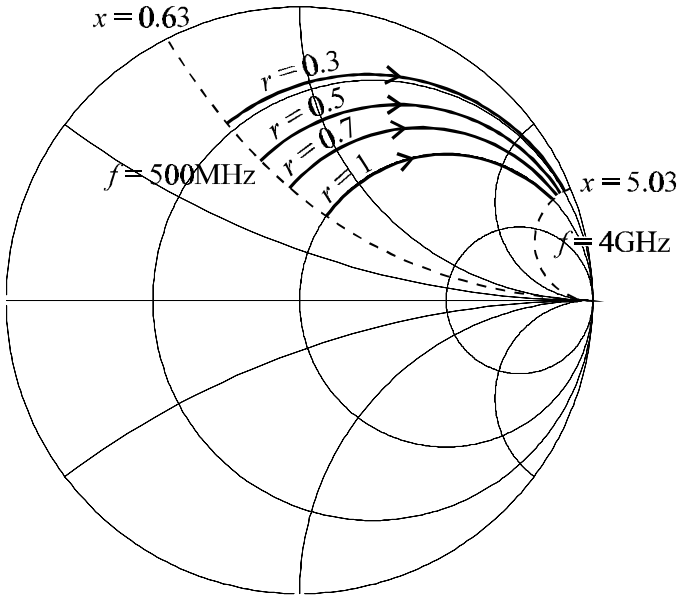
- Parallel connection of R and C elements

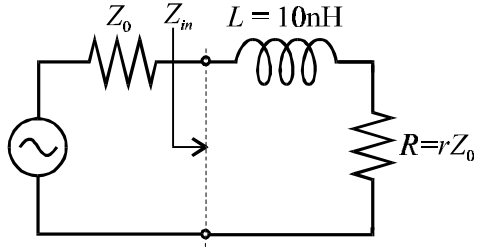
$$y_{in}(w_L) = g + jZ_0 w_L C$$



- Series connection of R and L elements

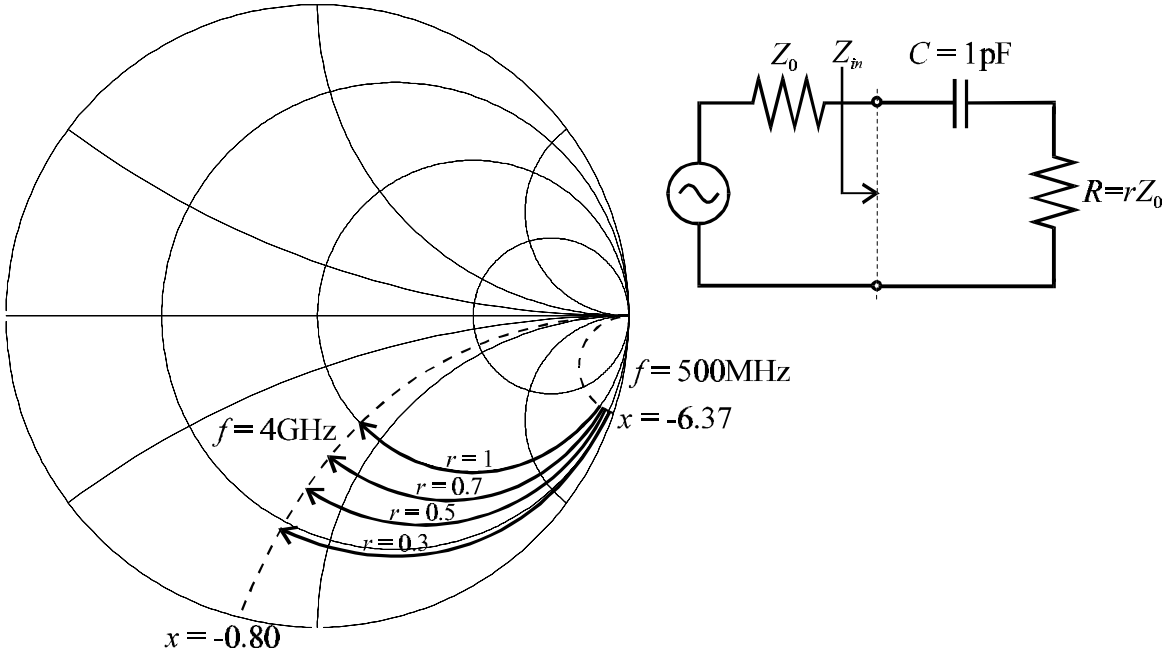
$$z_{in}(w_L) = r + j\frac{w_L L}{Z_0}$$





- Series connection of R and C elements

$$z_{in}(w_L) = r - j\frac{1}{w_L C Z_0}$$



Practical case: BJT connected via a T-network