



A equação deste circuito

$$H(s) = \frac{\frac{R_2}{sCR_2+1}}{sL + R_1 + \frac{R_2}{sCR_2+1}} = \frac{R_2}{(sL + R_1)(sCR_2 + 1) + R_2} = \frac{\frac{1}{LC}}{s^2 + s \left(\frac{R_1}{L} + \frac{1}{R_2C} \right) + \frac{1}{LC} + \frac{1}{LC} \frac{R_1}{R_2}},$$

logo os pólos de H são

$$H(s) = \frac{-\left(\frac{R_1}{L} + \frac{1}{R_2C}\right) \pm \sqrt{\left(\frac{R_1}{L} + \frac{1}{R_2C}\right)^2 - 4\frac{1}{LC}\left(1 + \frac{R_1}{R_2}\right)}}{2}$$