

Handout #18

3.5 FORCE TRANSMISSION AND VIBRATION ISOLATION

Consider the mass-spring-damper system shown in the left inset in Fig. 3.5.1 subjected to a harmonic force. The force transmitted to the base is

$$f_T = f_S + f_D = ku(t) + c\dot{u}(t) \tag{3.5.1}$$

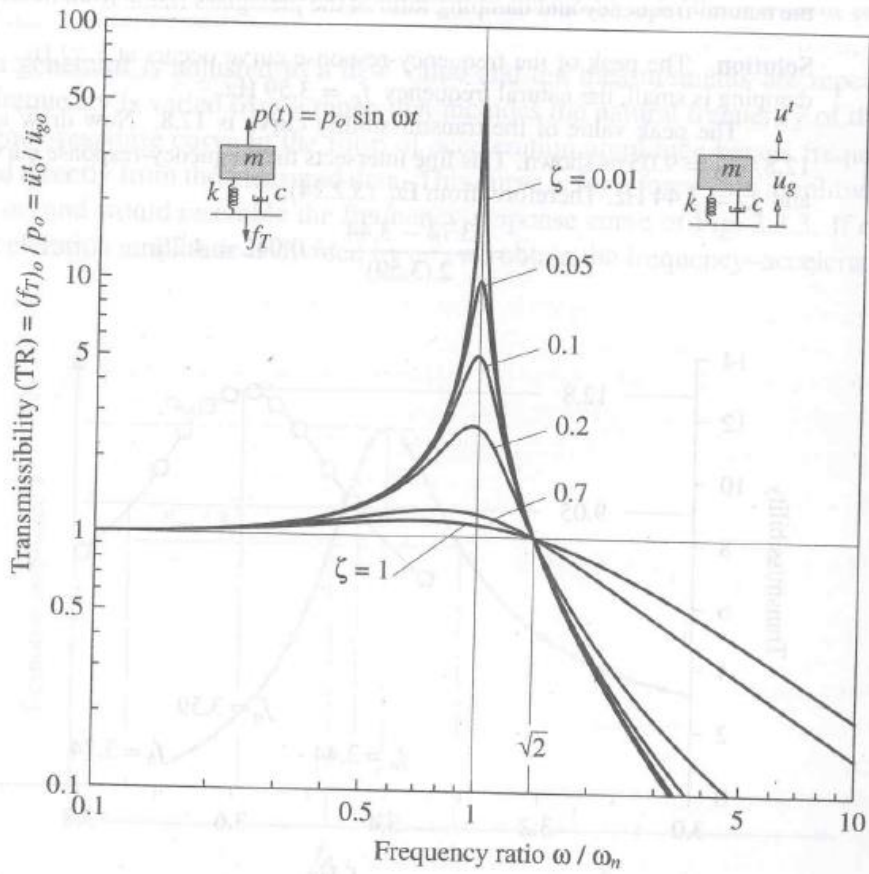


Figure 3.5.1 Transmissibility for harmonic excitation. Force transmissibility and ground motion transmissibility are identical.