

Figure 1: A schematic of spinal column and lumbar spine

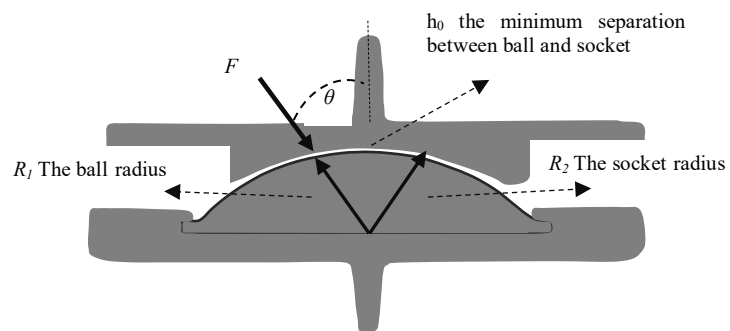
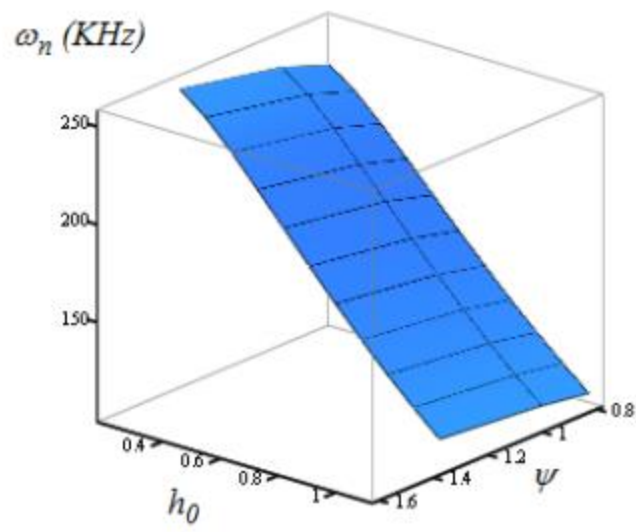
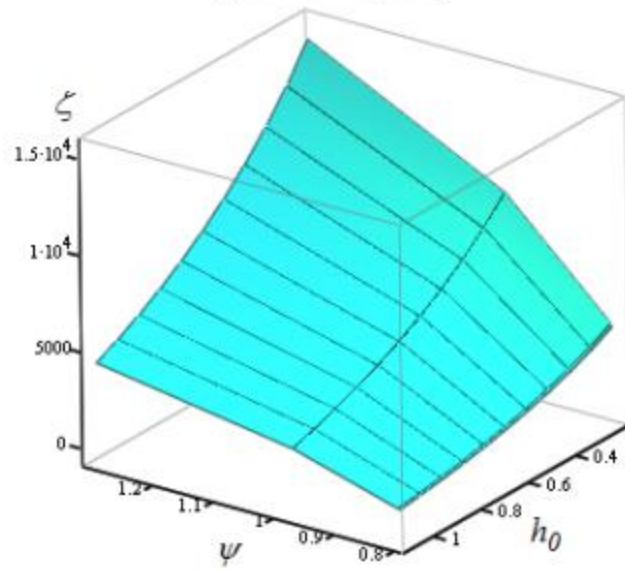


Figure 2: Schematic depiction of spine joint



(a) Contact Frequency



(b) Contact damping ratio

Figure 3: natural frequency and damping ratio of contact model