EOS/PHYS 427 — Assignment 5

Due: Tuesday, March 7, 2023

1. Consider the Love-wave dispersion relation given in class notes for the case of a layer of thickness h, S-wave velocity β_1 and density ρ_1 over a half-space of S-wave velocity β_2 and density ρ_2. Show that in the limit as β_2, $\rho_2 \to \infty$ that this equation becomes the dispersion relationship for a layer of thickness h with a rigid lower surface, also given in class notes. (15 pts)