

Passive Structural Control (HW 3)

Due: 4/18

1. Damping Reduction Factor

Generate damping reduction factor B_d and B_a of the attached ground motions (40 chi-chi earthquake records) with damping ratios 2%, 5%, 10%, and 20% and with structural periods 0.2 sec, 1 sec, 2 sec, and 4 sec.

- (1) Plot the scatter diagram (B_d or B_a vs. structural periods) with each damping ratio.
- (2) You should get average from the result of B_d or B_a in each damping ratio and structural period and compare to the codes (B_s or B_l).
- (3) **You are required to do only one direction (NS).**