Coursework 3 Figures

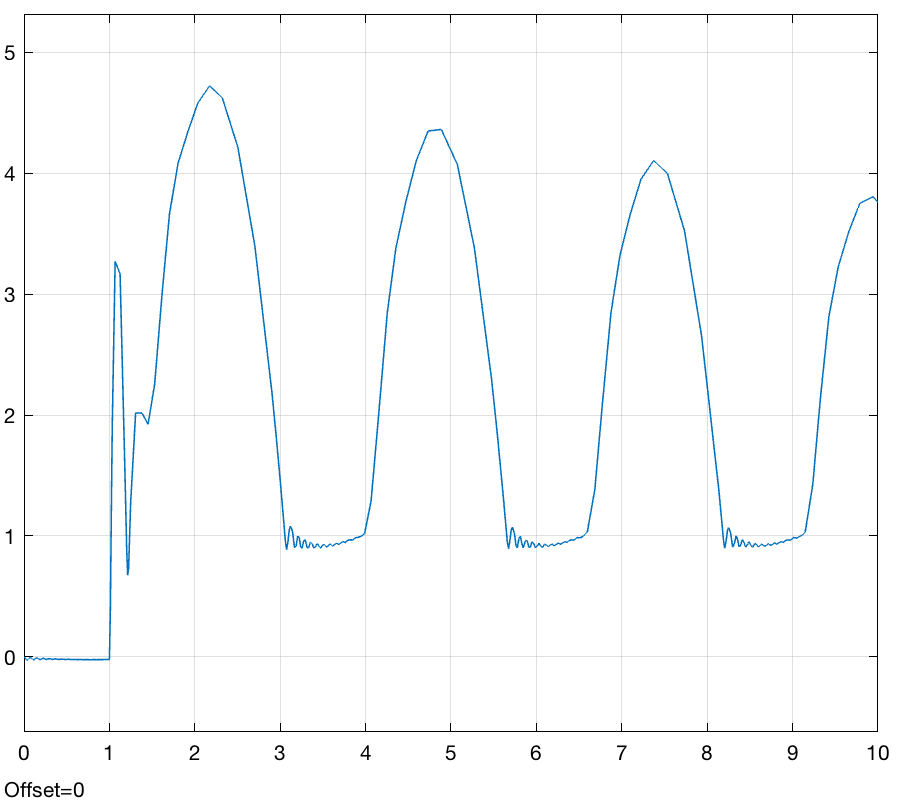


Figure 1: Wheel Displacement

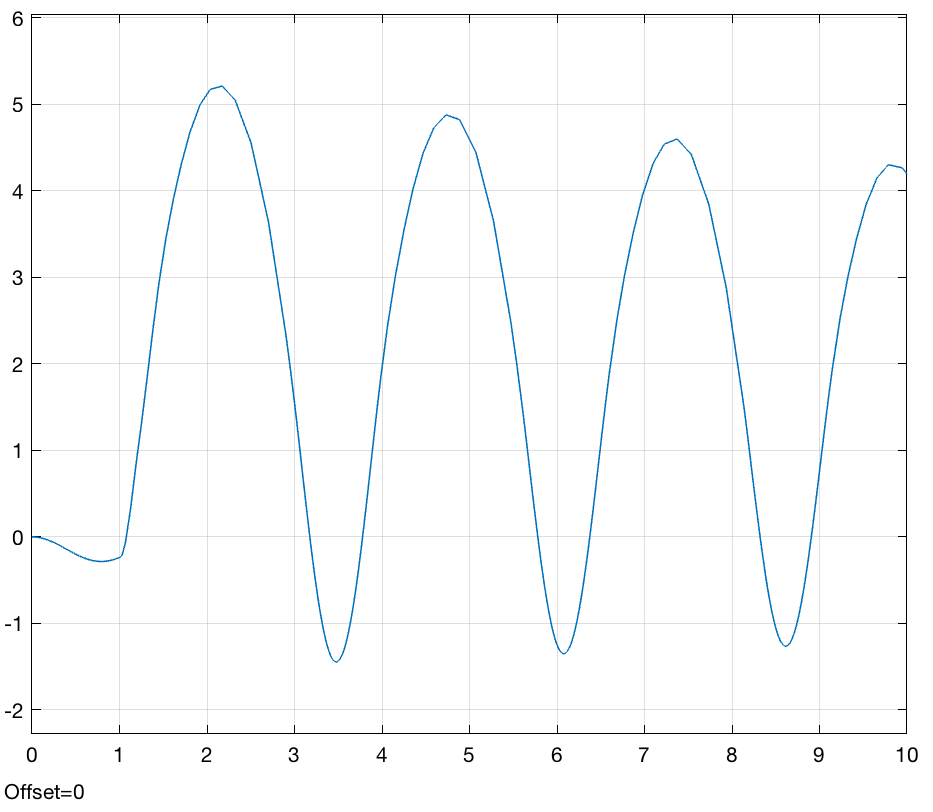


Figure 2: Body Displacement

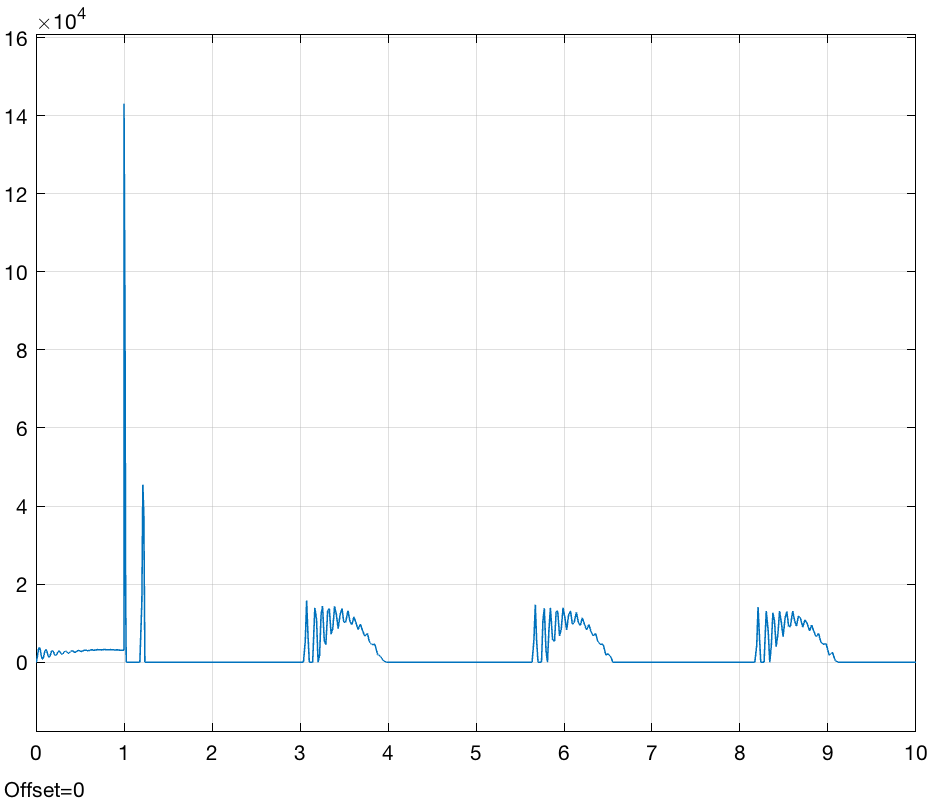


Figure 3: Tyre Force

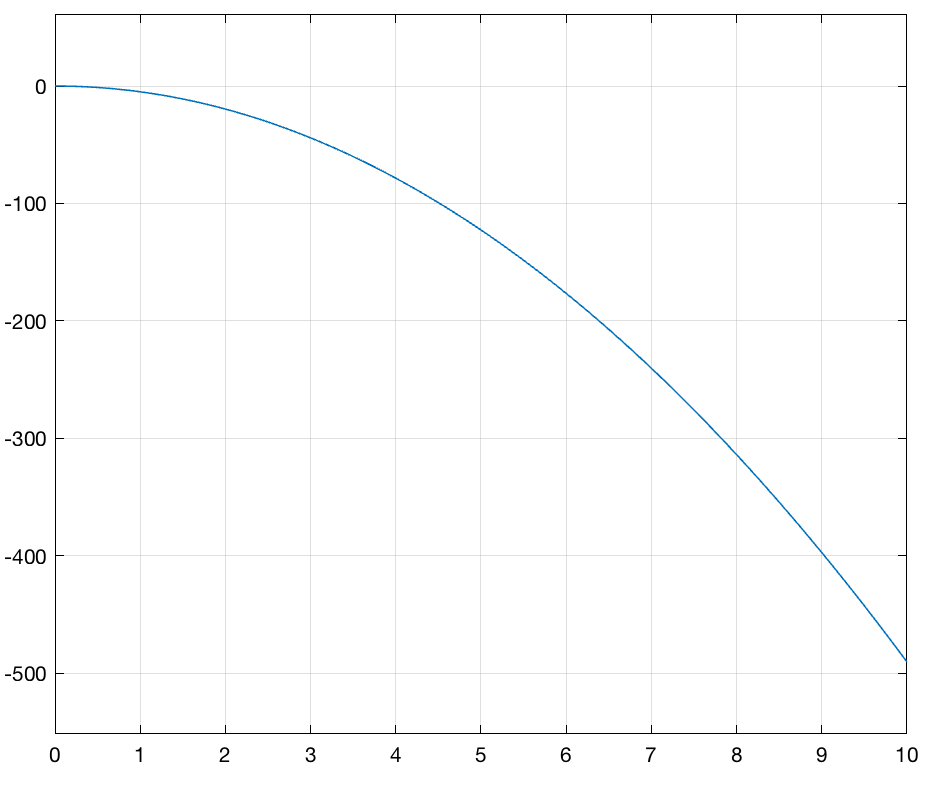


Figure 4: verifying body model: zero force input

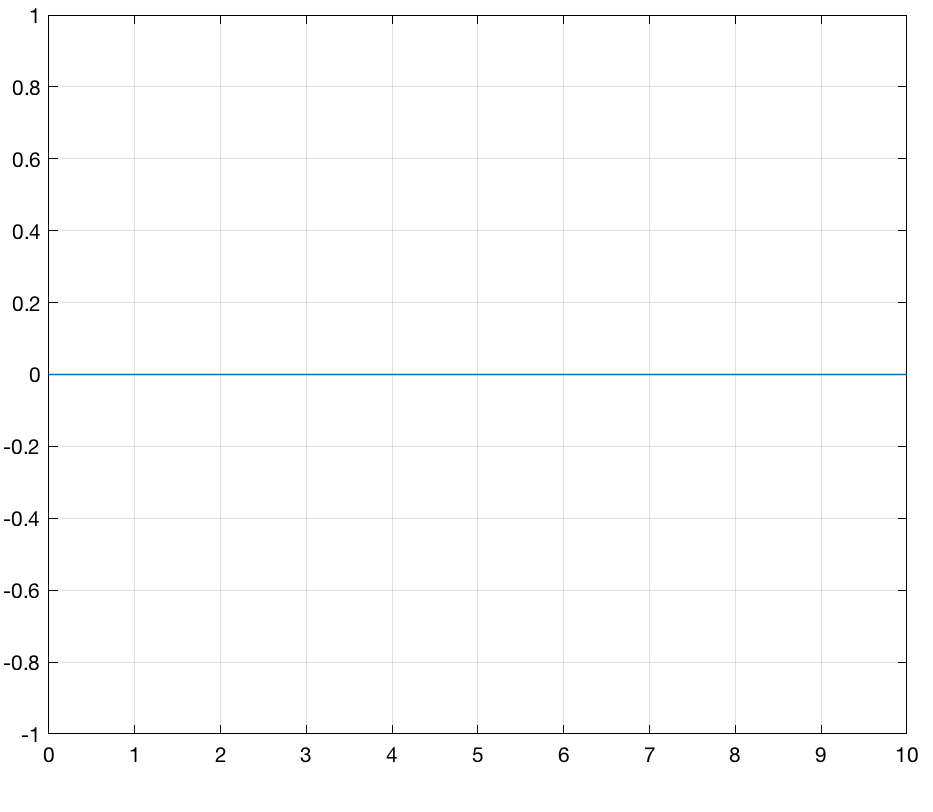


Figure 5: verifying body, force is equal and opposite to body weight

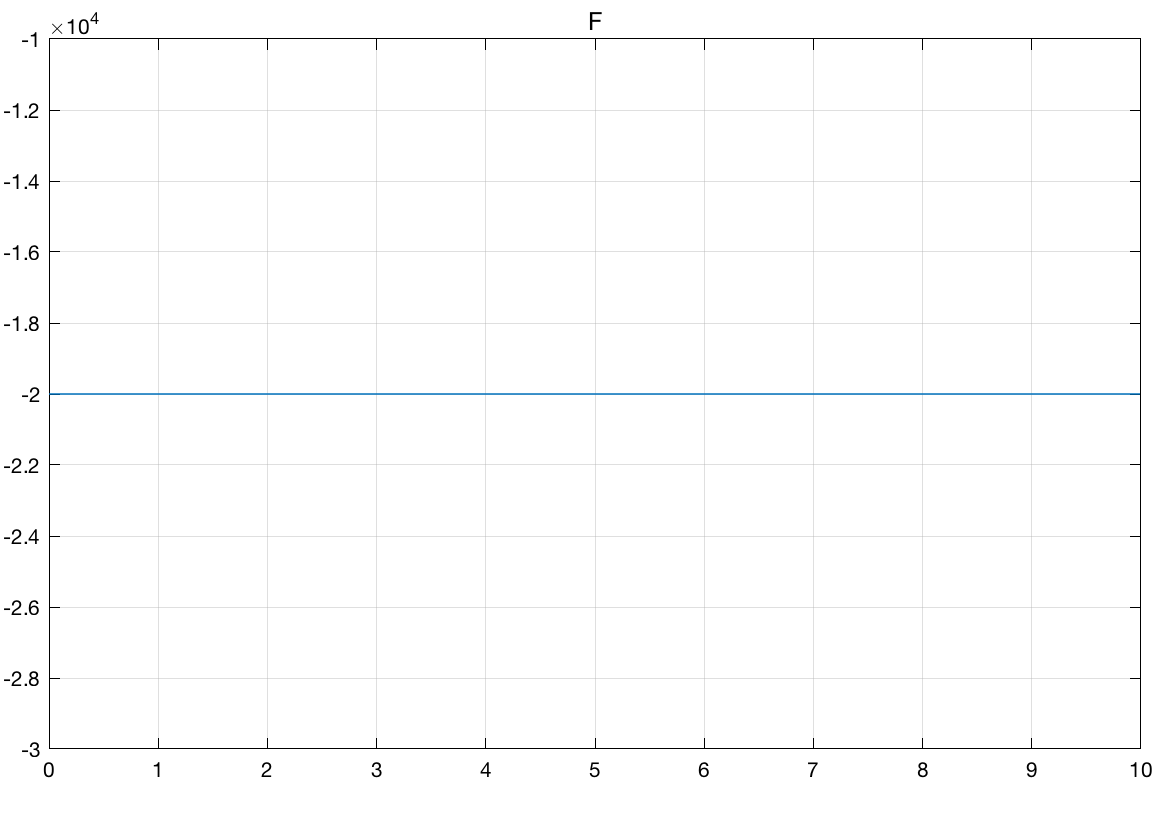


Figure 6: verifying suspension model: unit input in s1; all else 0

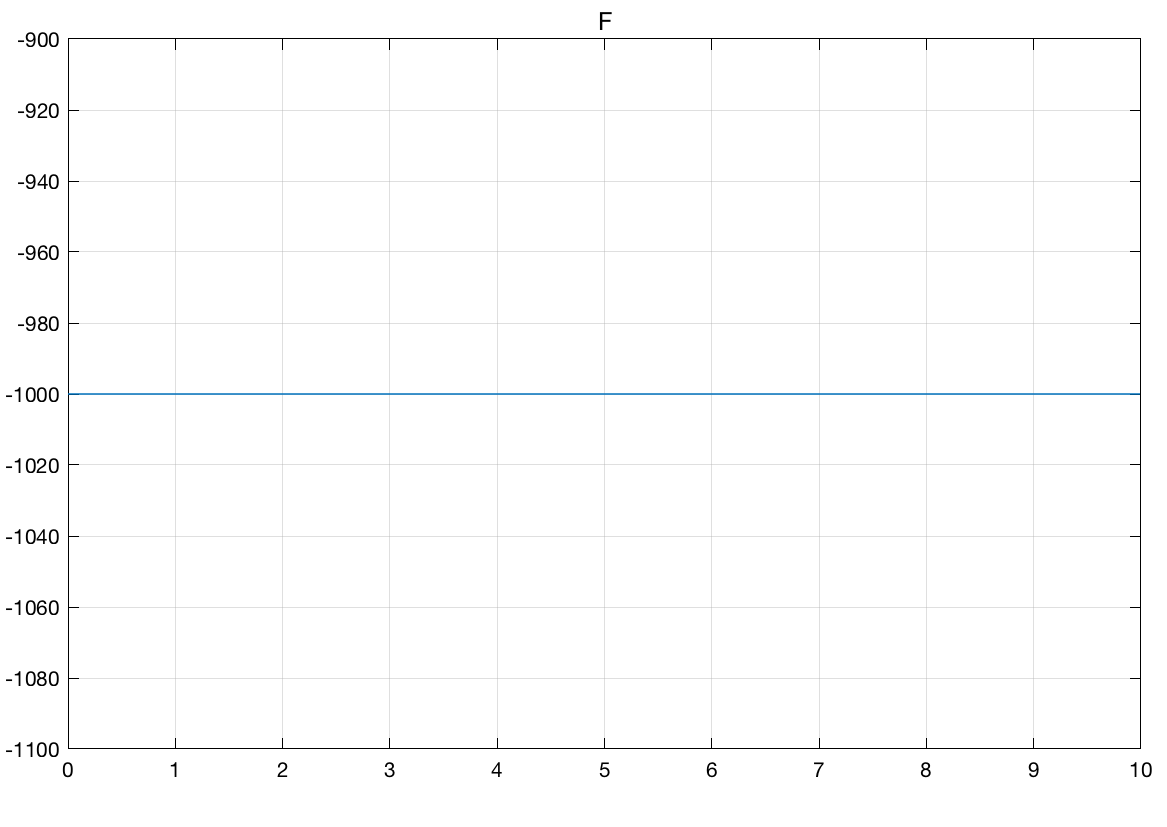


Figure 7: verifying suspension model: unit input in s1d; all else 0

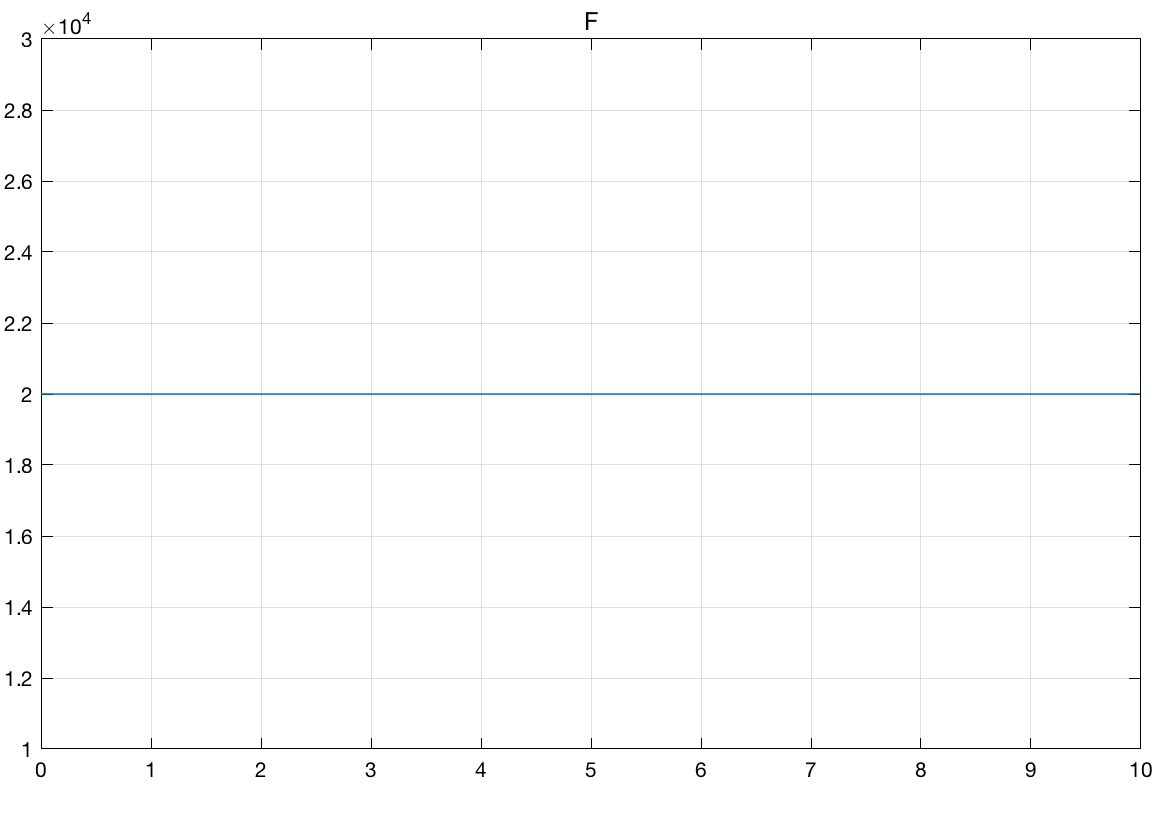


Figure 8: verifying suspension model: unit input in s2; all else 0

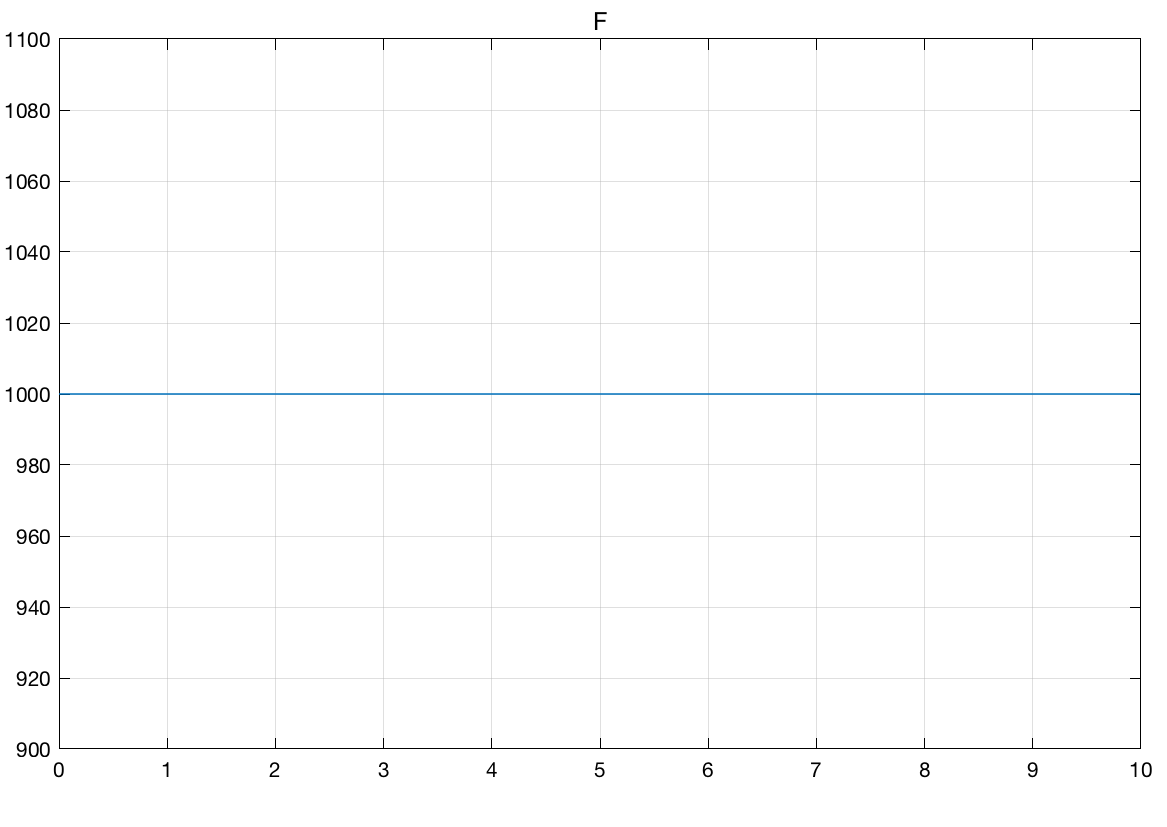


Figure 9: verifying suspension model: unit input in s2d; all else 0

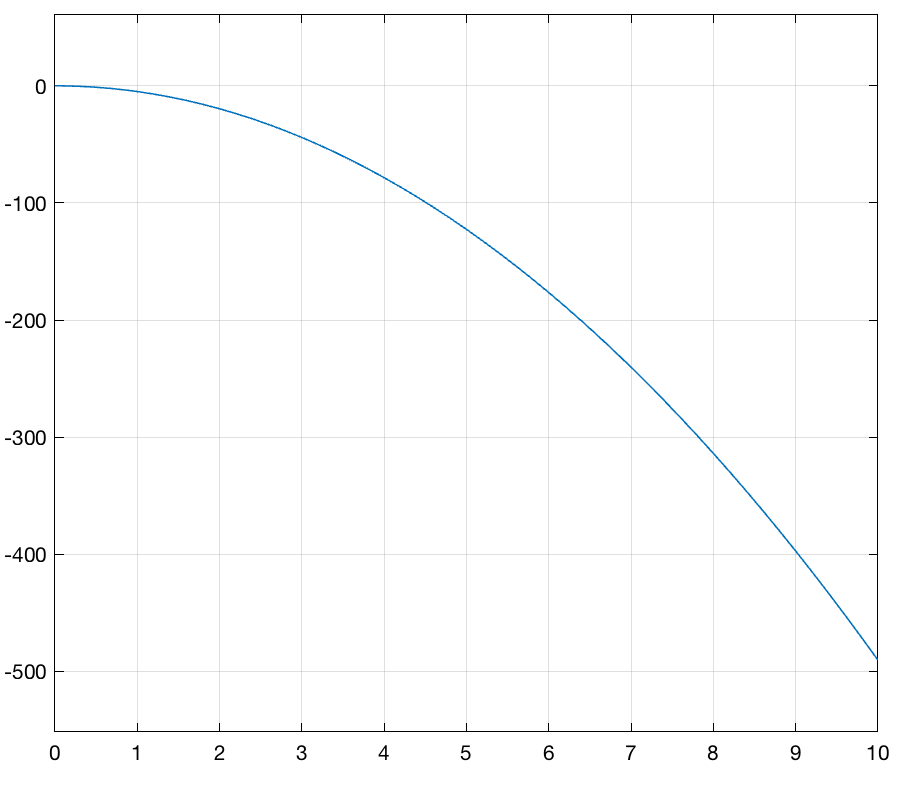


Figure 10: verifying wheel subsystem; kt = 0; F = 0

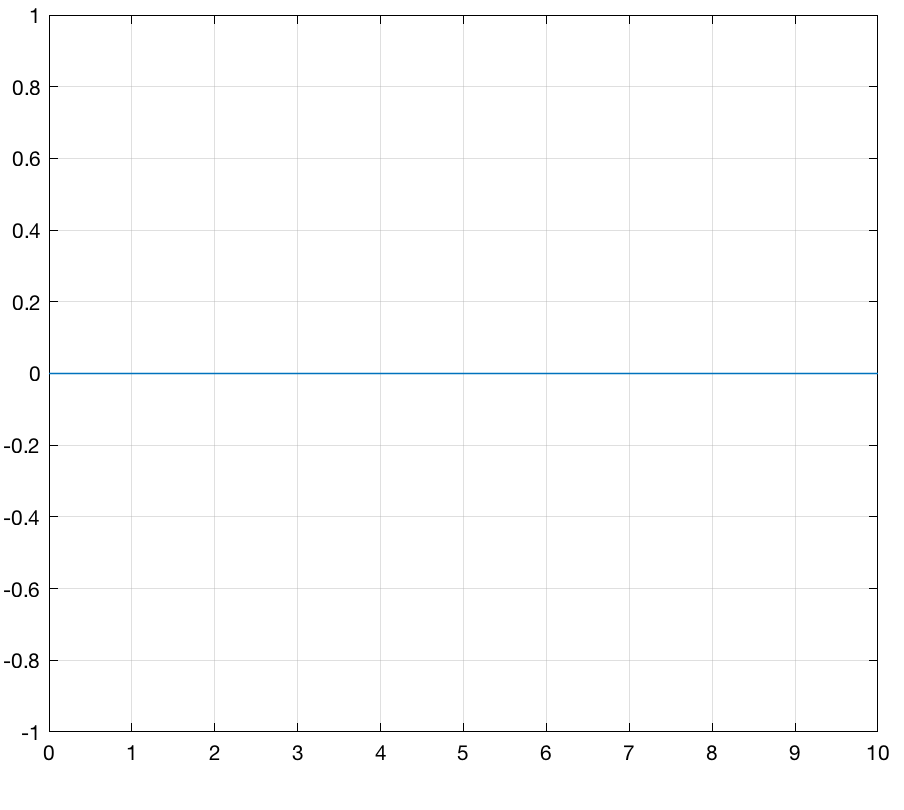


Figure 11: verifying wheel subsystem; kt = 0; F = -g\*m2

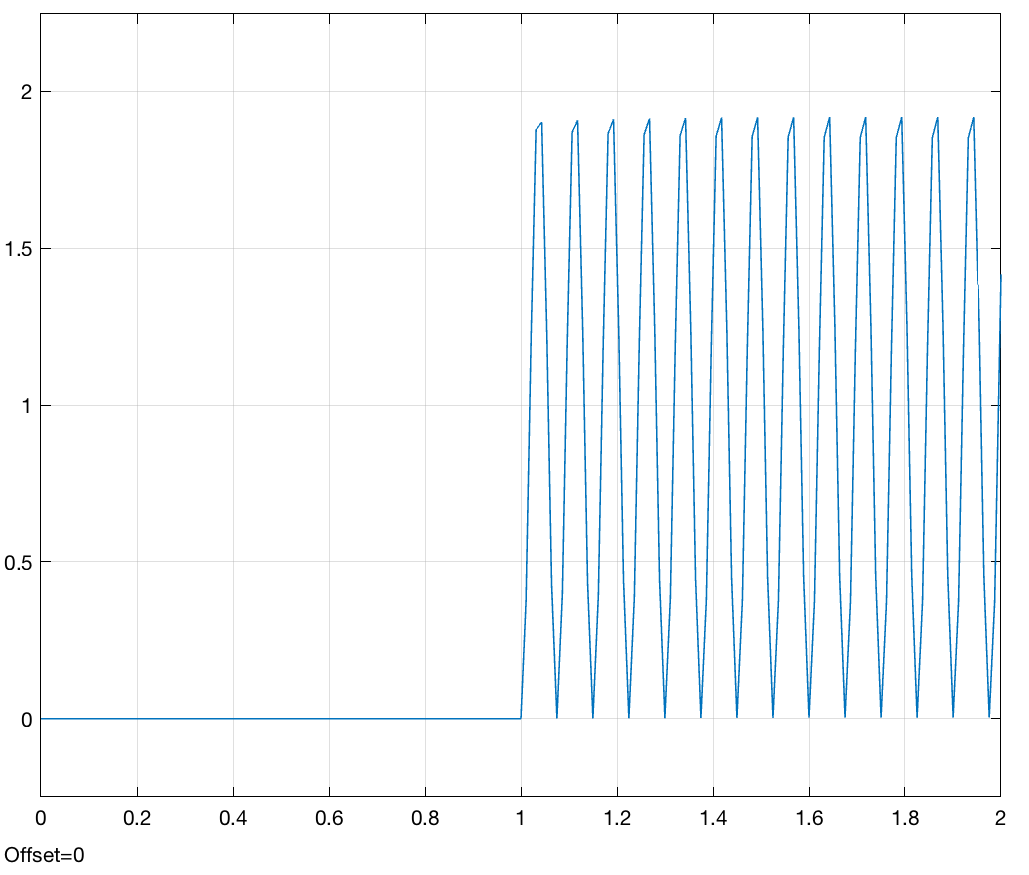


Figure 12: verifying wheel subsystem; kt = 14e4; g = 0; F = 0 (wheel displacement)

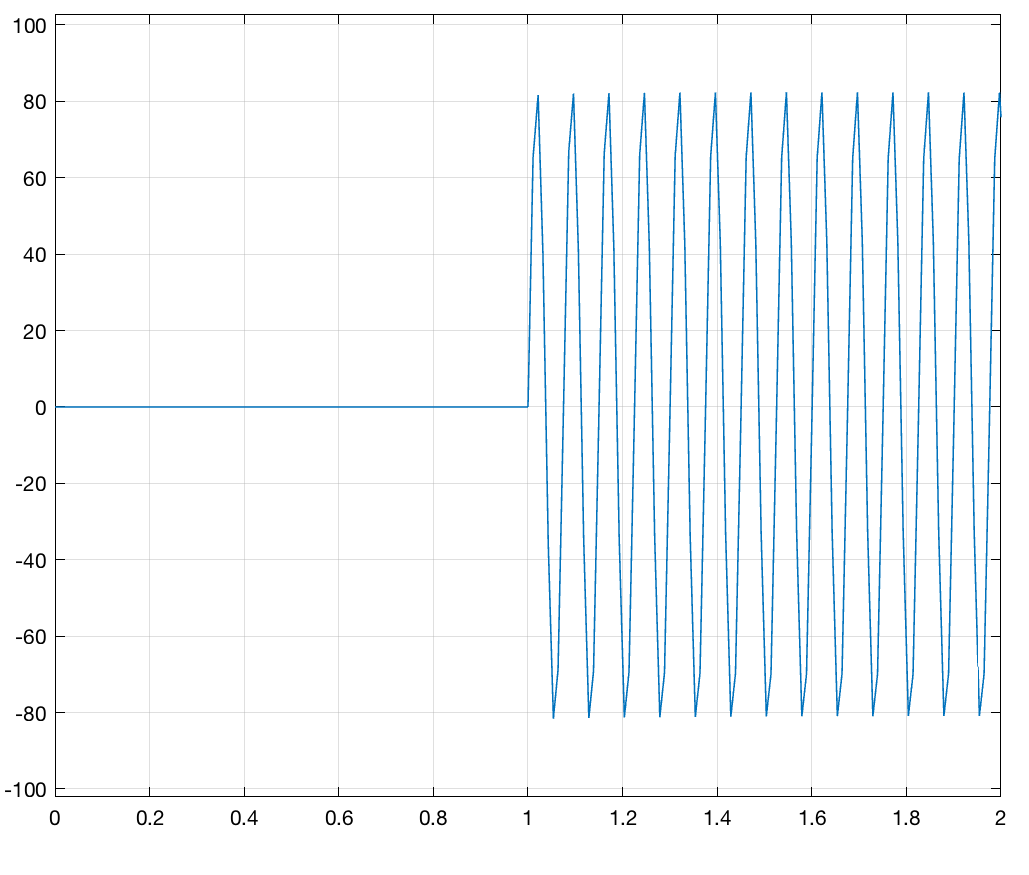


Figure 13: verifying wheel subsystem; kt = 14e4; g = 0; F = 0 (wheel velocity)

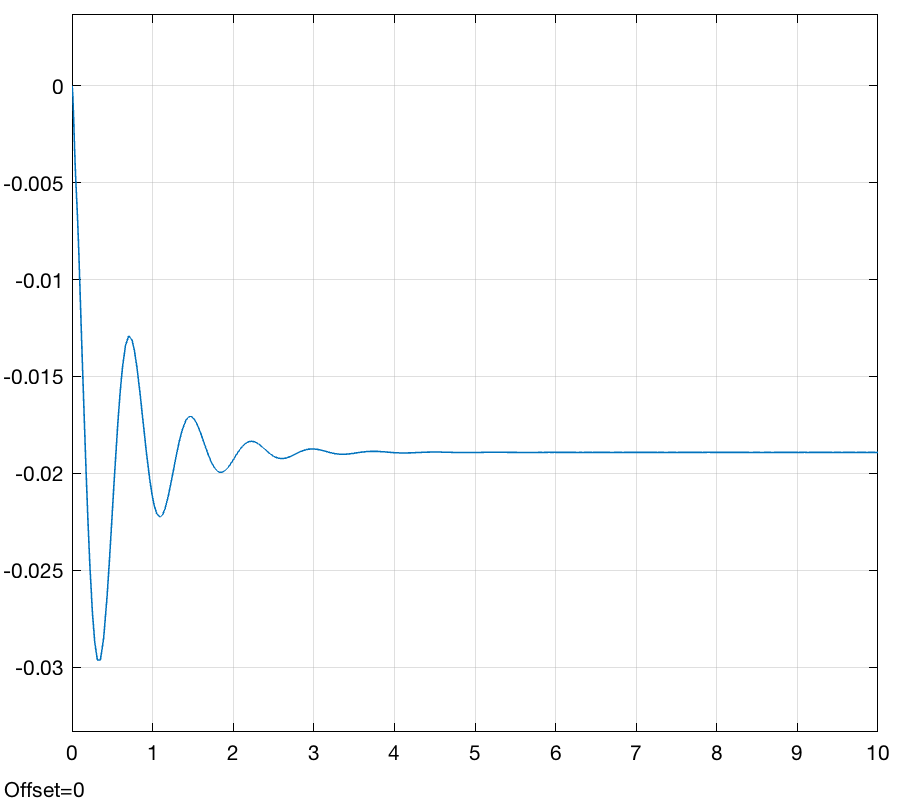


Figure 14: verifying whole system; r = 0; s2 (wheel displacement)

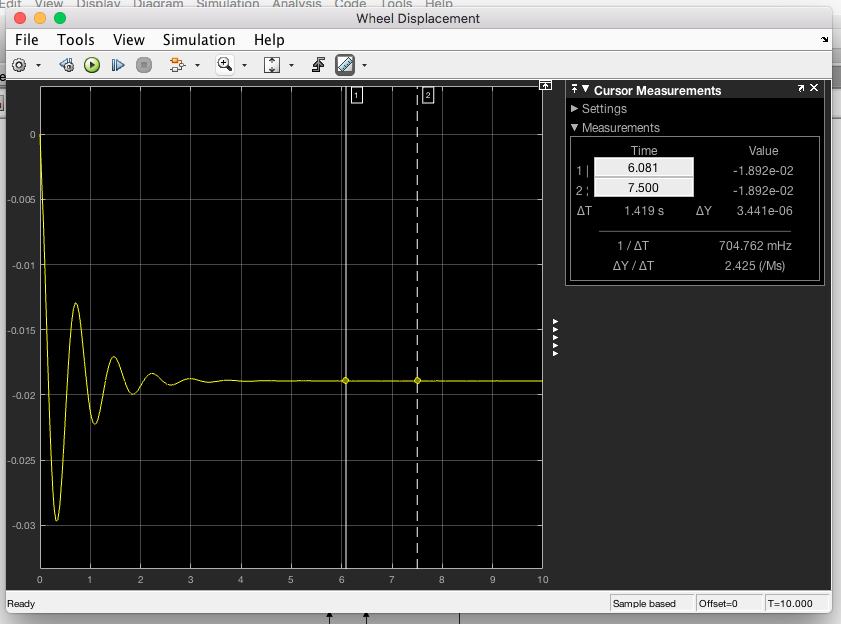


Figure 15: wheel displacement settling

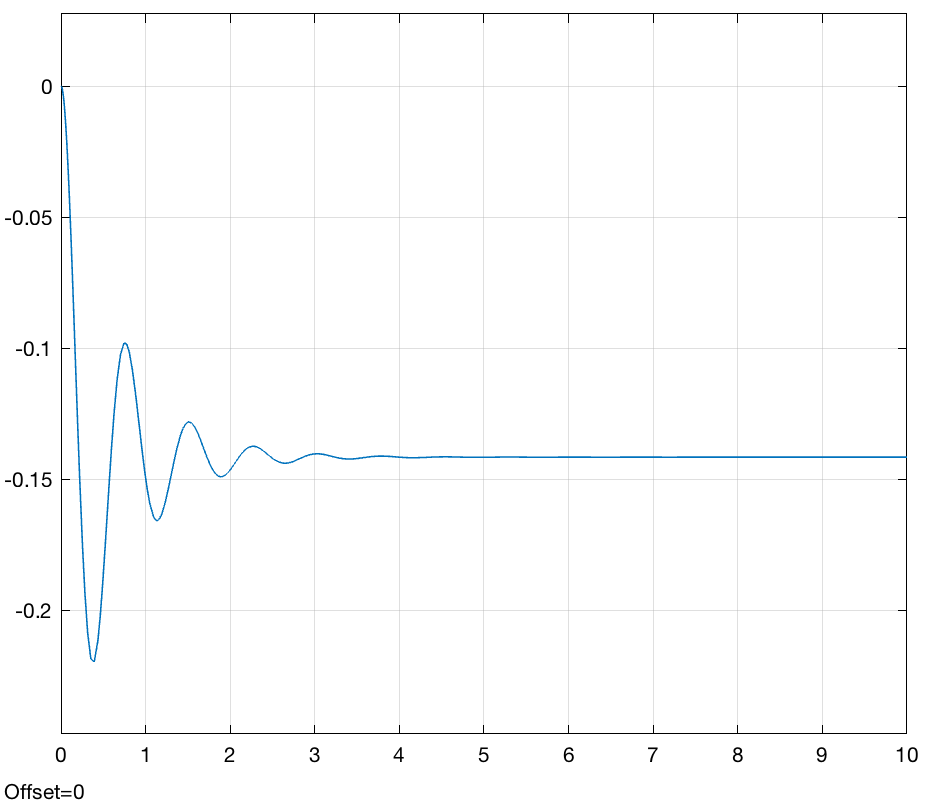


Figure 16: verifying whole system; r = 0 (s1, body displacement)

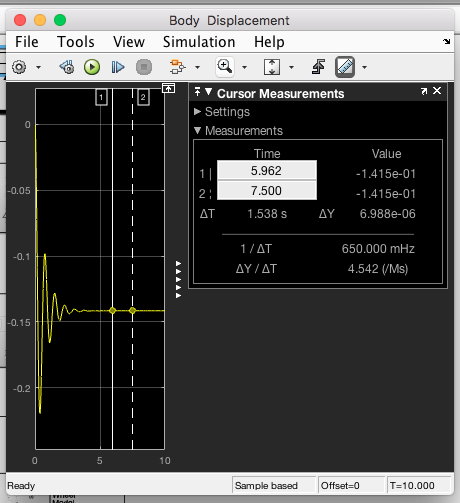


Figure 17: body displacement settling

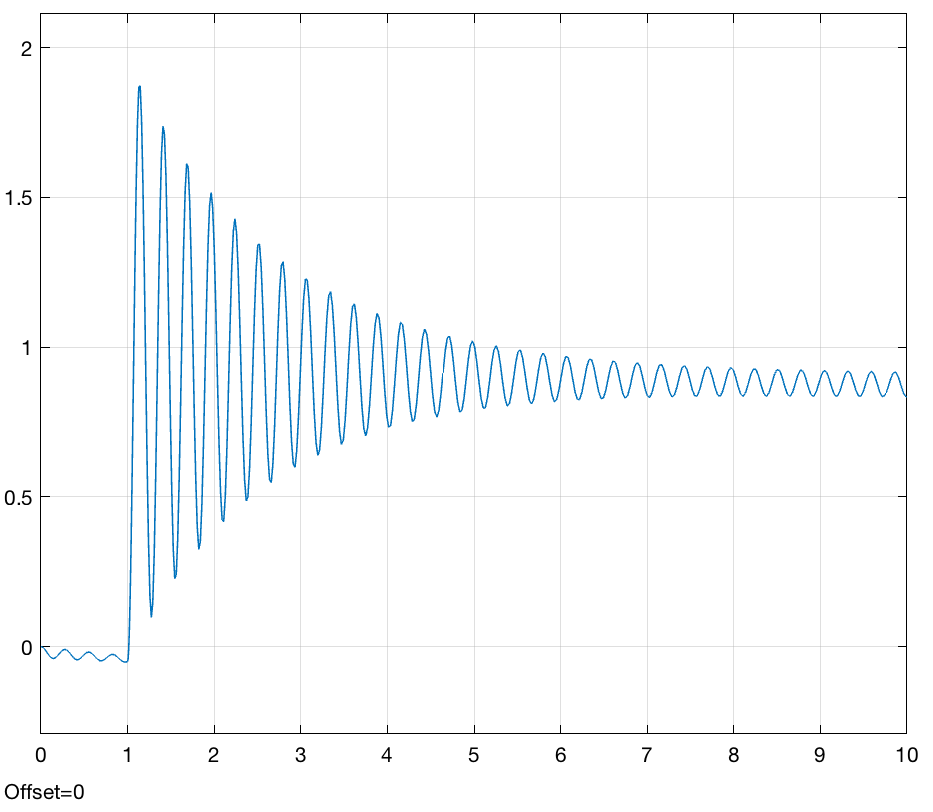


Figure 18: body disp for test b; cs = 100000

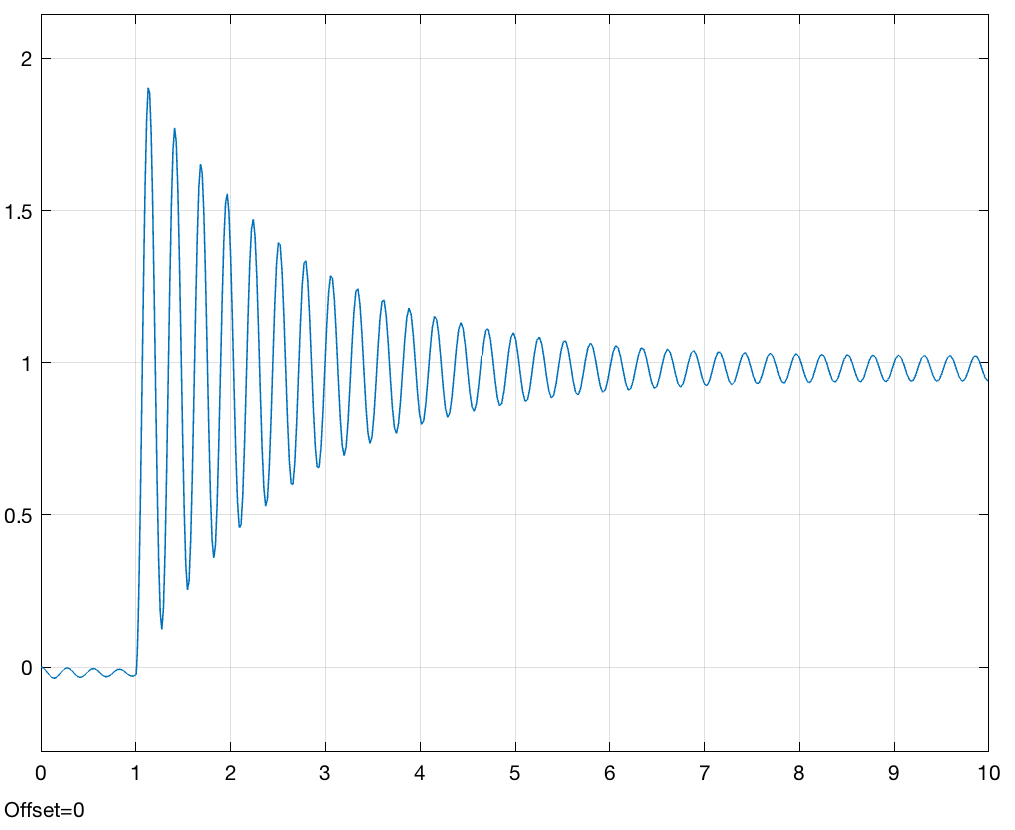


Figure 19: wheel disp for test b; cs = 100000

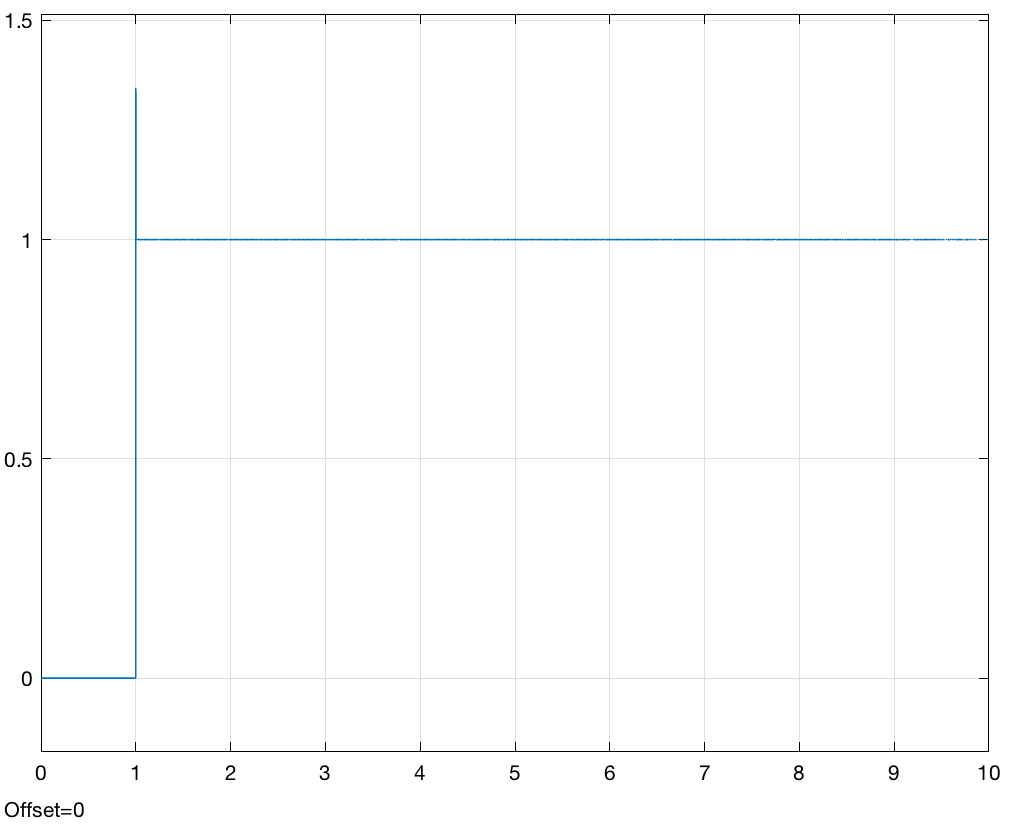


Figure 20: verifying whole system; wheel disp for test c; m2 = 0.002; kt = 14e8

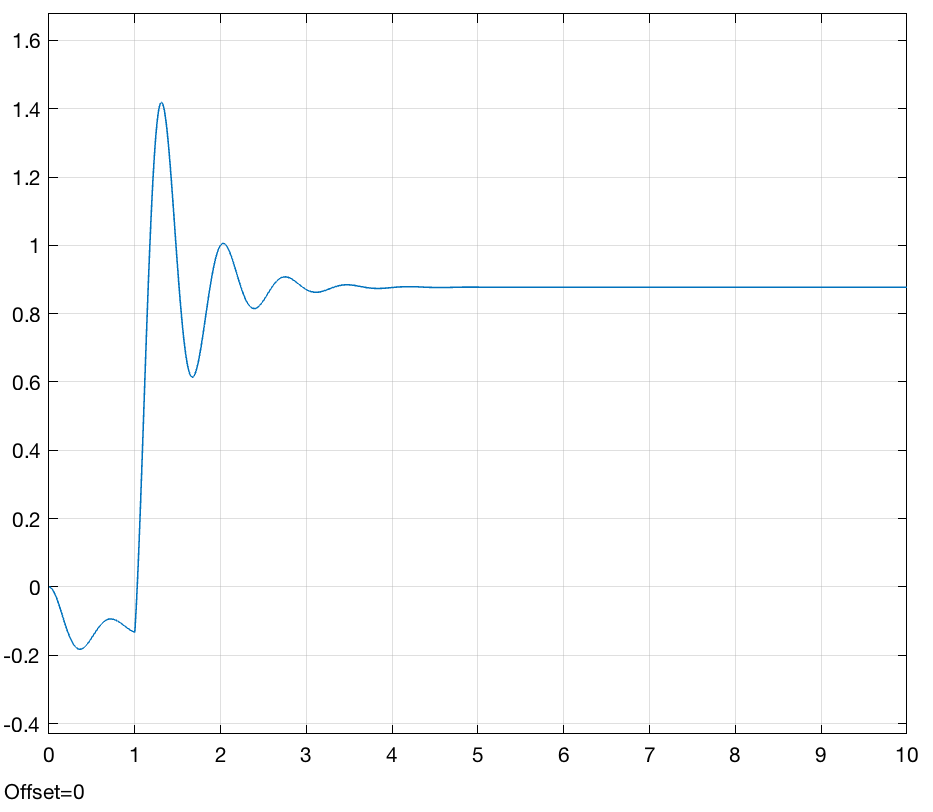


Figure 21: verifying whole system; body disp for test c; m2 = 0.002; kt = 14e8