

Assignment 5: Due February 25.

Problem 1. Do problem 9.4.1 out of Haug's book.

Problem 2 [Bonus Problem]. Do problem 9.6.2 out of Haug's book. Note a slightly different notation used in the book: Haug's $d2$ is our $DP2$ basic geometric constraint. Additionally, he uses a prime to refer to a quantity expressed in the L-RF: s'^P , instead of \bar{s}^P that we use.

Problem 3. Do problem 9.6.3 out of Haug's book.

Problem 4. Assume that you have two bodies i and j and the relative motion of i and j is such that a point P on i always belongs to a plane of body j . Define a set of attributes for this GCon and then using them specify the Algebraic Constraint Equation[s] associated with the GCon. How many degrees of freedom does this GCon remove? In plain words, explain what motion body i could still experience if body j were fixed.

Problem 5. Assume that you have two bodies i and j and the relative motion of i and j is such that a point line on i always belongs to a plane of body j . Define a set of attributes for this GCon and then using them specify the Algebraic Constraint Equation[s] associated with the GCon. How many degrees of freedom does this GCon remove? In plain words, explain what motion body i could still experience if body j were fixed.