

wb1413

Multibody Dynamics B

Spring Term 2009, Thu 15:45-17:30, Mechanical Engineering, room B, 4 ECTS credits.

Homework assignment 5

Redo assignments 2a-f and 4a-c but now use independent generalized coordinates and Lagrange equations to derive the equations of motion. Compare and discuss your results with the results from assignments 2a-f and 4a-c. Note that this can not be done for the constraint forces (or the constraint impulses) since by using independent generalized coordinates you have eliminated these forces from the equations of motion.

Bonus Question: Try to think of a general method to determine *only one* arbitrary constraint force when using the Lagrange equations of motion and demonstrate this method on the double pendulum.