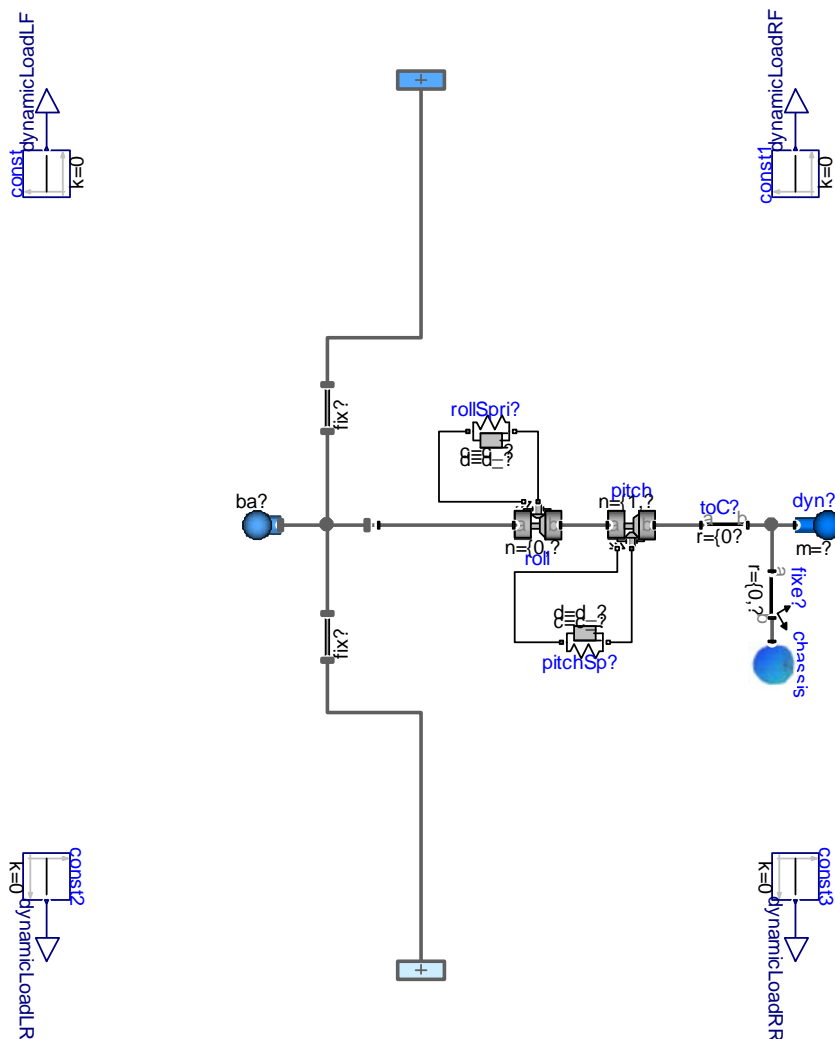


Virtual Physics

17.12.2013

Exercise 9: Dynamic Load Handling



The chassis model in PlanarMechanicsV3.mo contains four output connectors. In the complete model of the two-track model, Examples.TwoTrackWithDynamicLoadSimVis, these are connected to the individual wheels and represent the dynamic fraction of the normal load.

In the current chassis model, the dynamic normal load is set to zero. This means that the chassis may tilt but this has no influence on the actual driving dynamics.

Your task is to compute the dynamic load (positive or negative!) within the current driving situation. To this end, you will need sensors at the roll and pitch revolute and the access the geometric parameters of the chassis.

Run the real-time simulation and feel the influence of the improved driving dynamics.