Evaluation of Ride Comfort for Passengers by Means of Computer Simulation

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An important aspect of rail vehicle dynamic analysis is a ride comfort analysis and a prediction when passengers and cargo can experience adverse conditions. The computational software utilisation helps to determine forces and accelerations in various positions through the body of the rail vehicle in order to predict ride properties or evaluate ideas for ride comfort in advance. This paper is aimed to the dynamic simulation of the rail vehicle running on a real track. The rail vehicle model creation, computations performance and determination of accelerations badly needed for the ride comfort evaluation is performed by SIMPACK package. Parameters of passenger rail vehicle model correspond to the four-axle two-bogie BR481 rail vehicle. The track model on that the vehicle has been run corresponds to the real track section in Slovakia.

Keywords: Ride comfort, Rail vehicle, Computer simulation

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References


