



This figure represents a step steer of about 18 degrees in a Ford Winstar at just under 7 m/s on dry pavement. The solid lines are simulation results from the 4-wheel model and the dotted lines are low-pass filtered data from the ABS sensors.

Notice how the measured yaw rate does not seem to slew as fast as the model predicts, and the model wheel speeds do not seem to spread quite as far as the real wheel speeds. Also note the level

of noise on the wheel speed signals. These plots use a 10Hz, 4<sup>th</sup> order low pass filter on all wheel speed signals. I think the more radical bumps in the signal may be caused by the dome tiles in the parking lot where this test took place.

As of yet there are no inertial measurements from GPS or yaw gyros to verify the absolute magnitude of the signals. The steady state values of yaw rate and wheel speed formed the basis of the simulation parameters.