

Assignment 3

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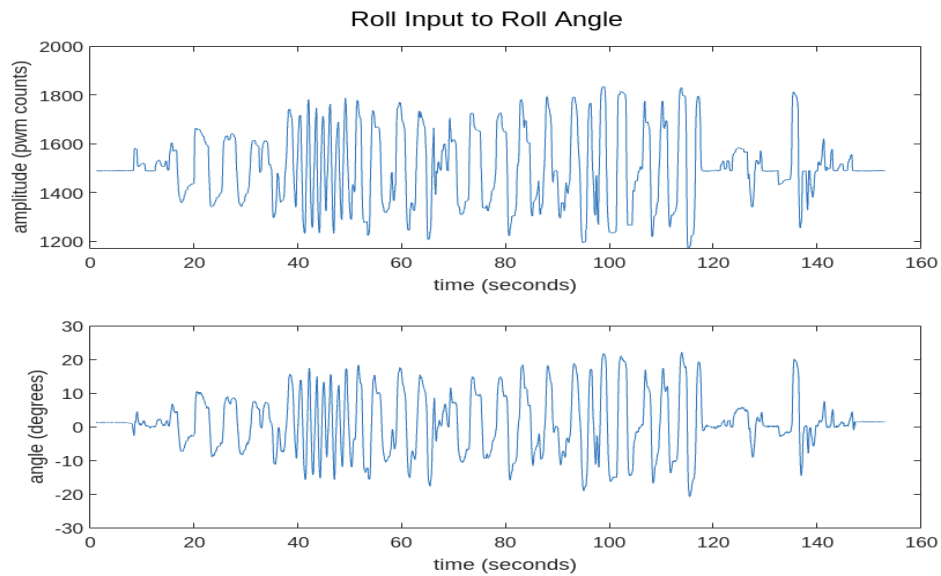
ENAE 788

**Hands on
Autonomous
Aerial Robotics**

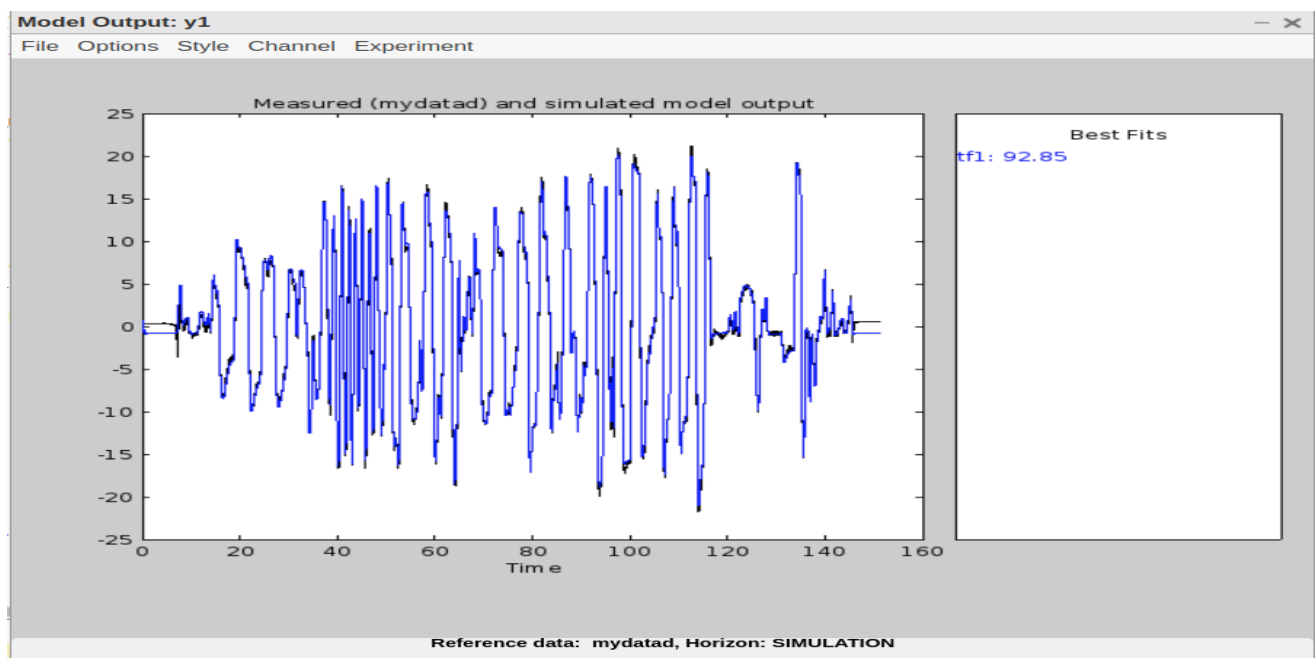
Dr. Joseph Conroy

Problem 1

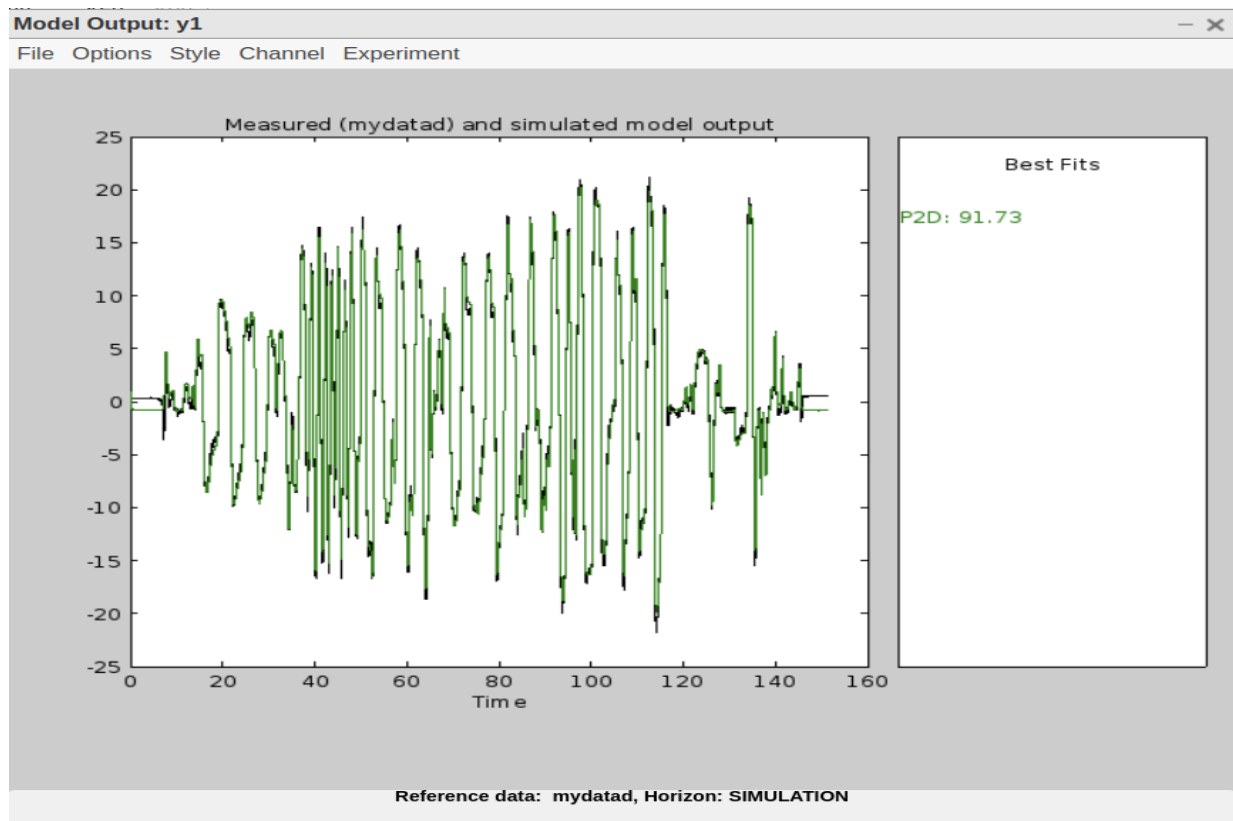
The plot of roll Input and roll Angle.



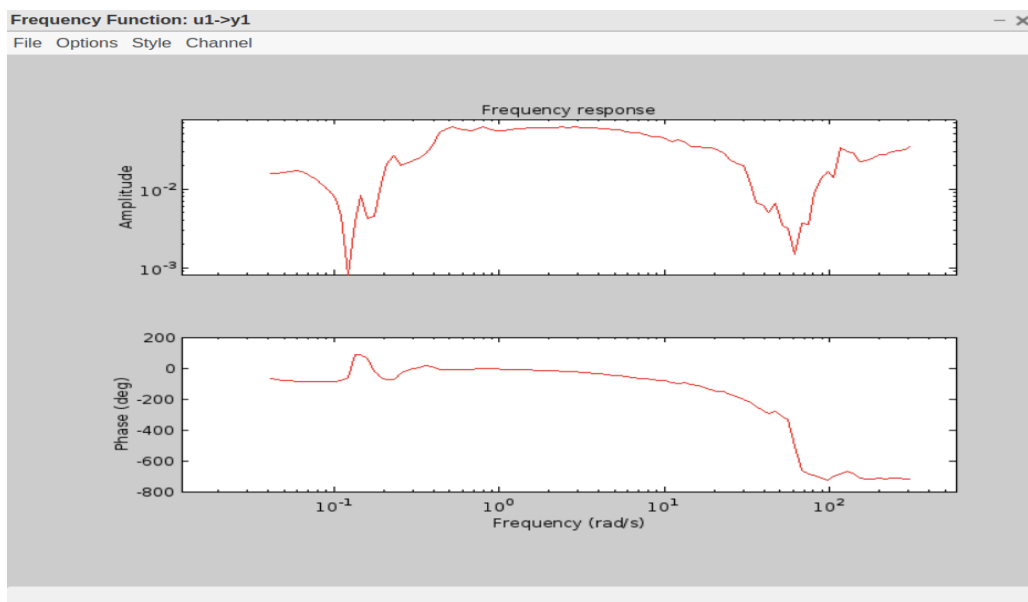
The plot of Transfer Function Method with 2 poles and 1 zero with
92.85 fit



The plot of Process Model with 2 poles with 91.73 fit

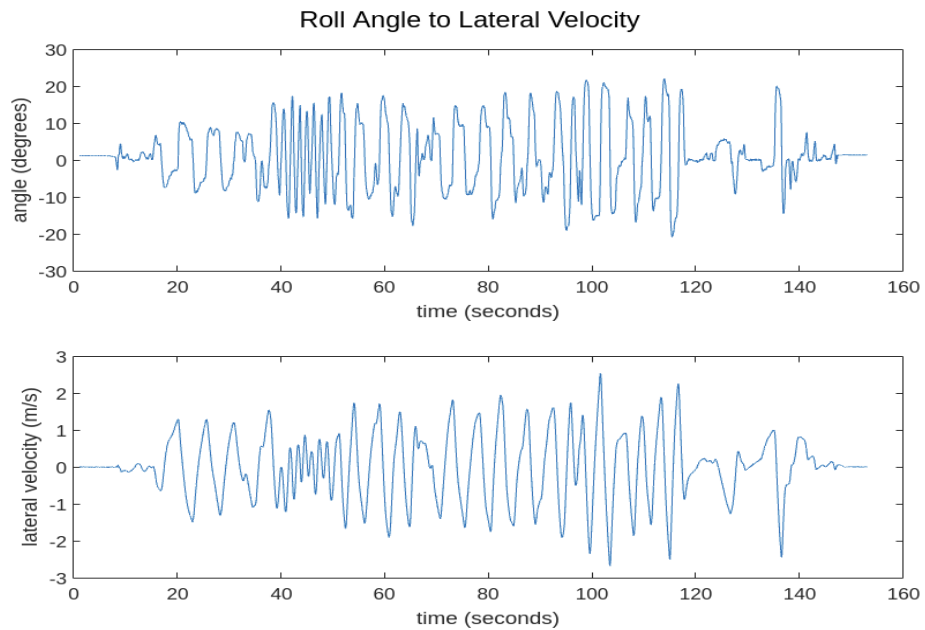


The plot of Spectral Model

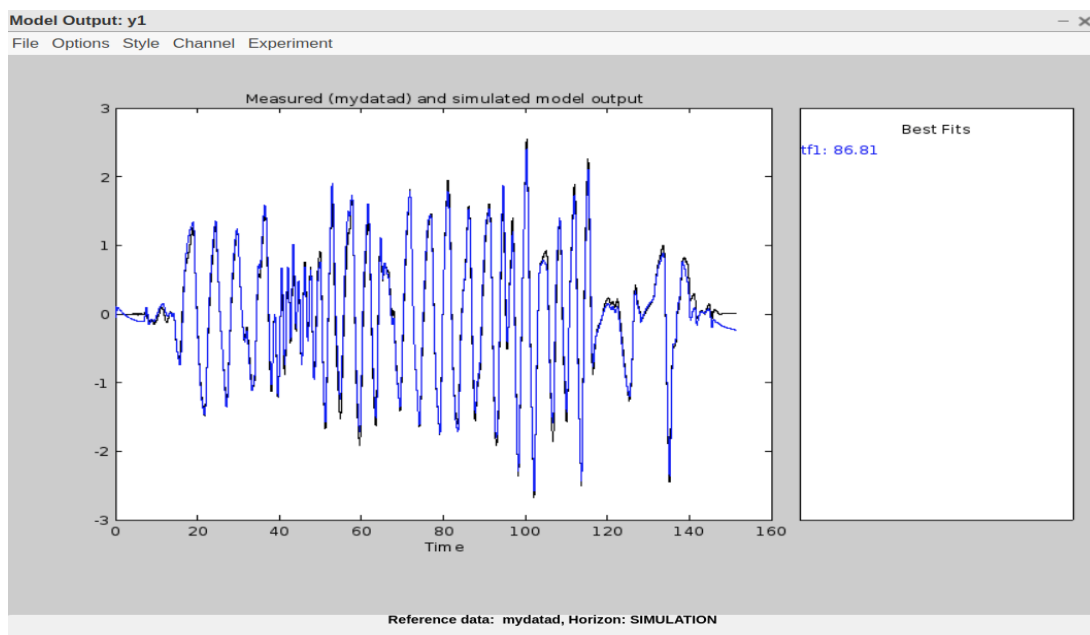


Problem 2

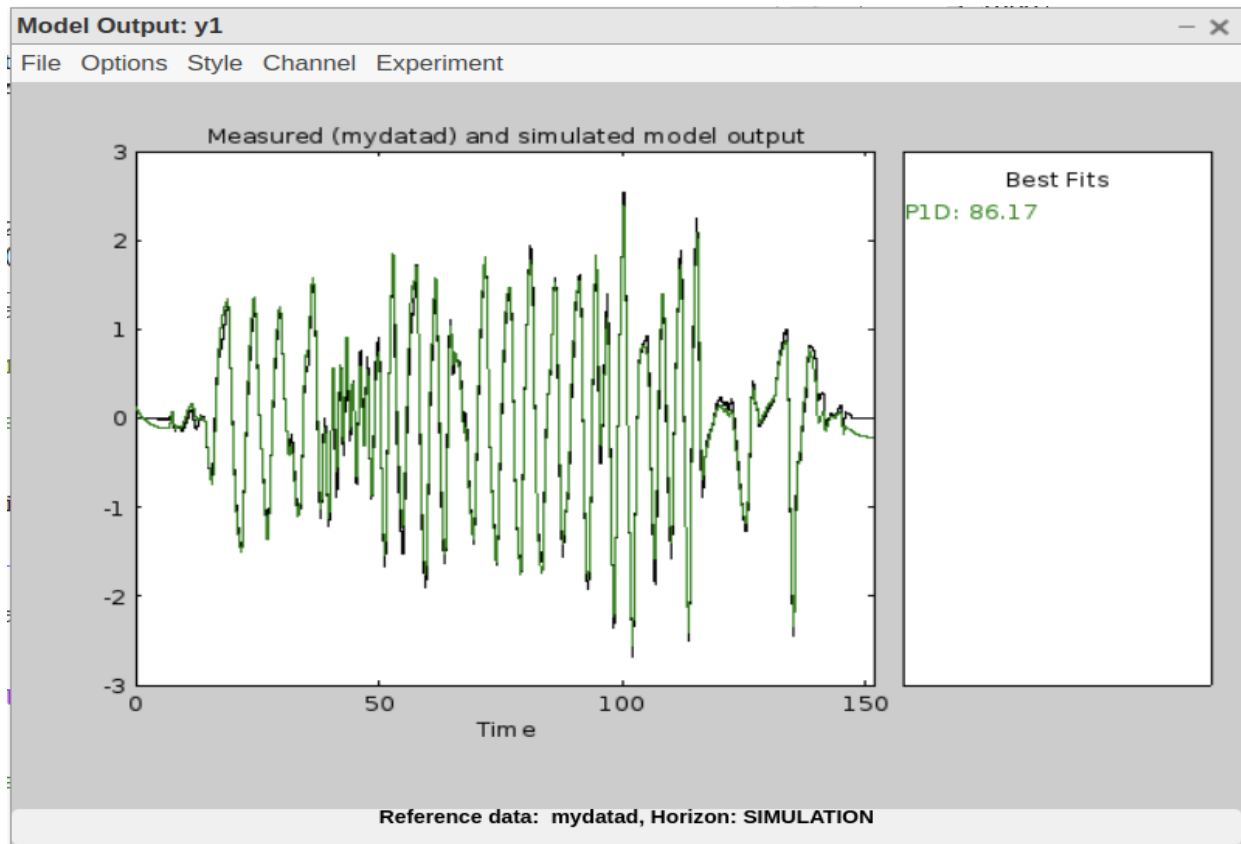
The plot of Roll Angle to Lateral Velocity



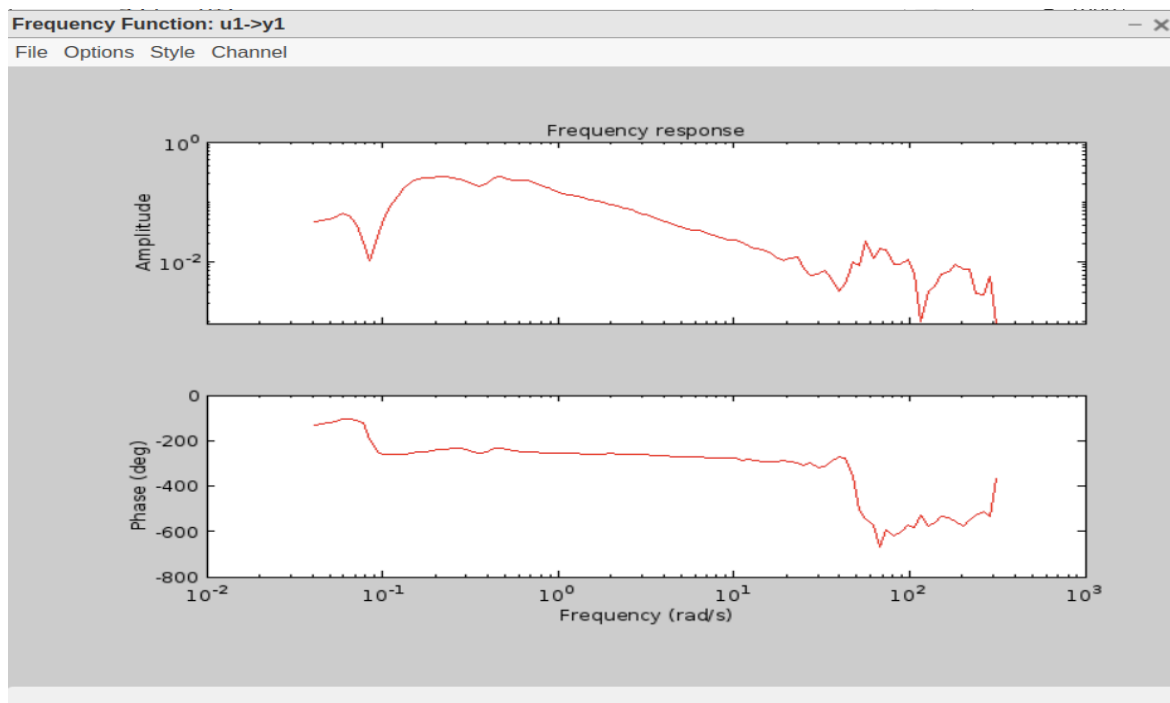
The plot of Transfer Function Method with 3 poles and 1 zero with 86.81 fit



The plot of Process Method with 1 pole with 86.17 fit

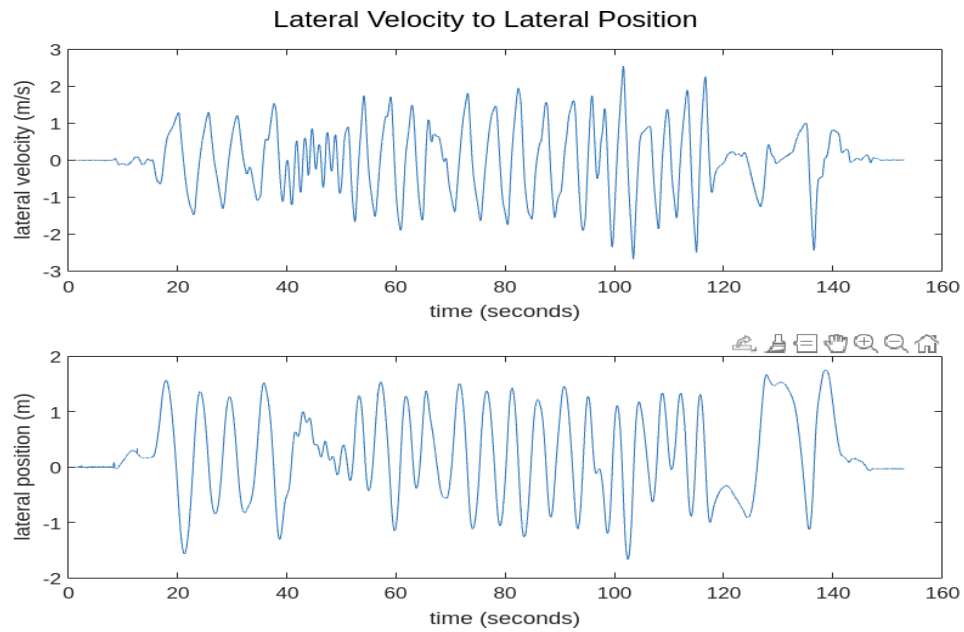


The plot of Spectral Model

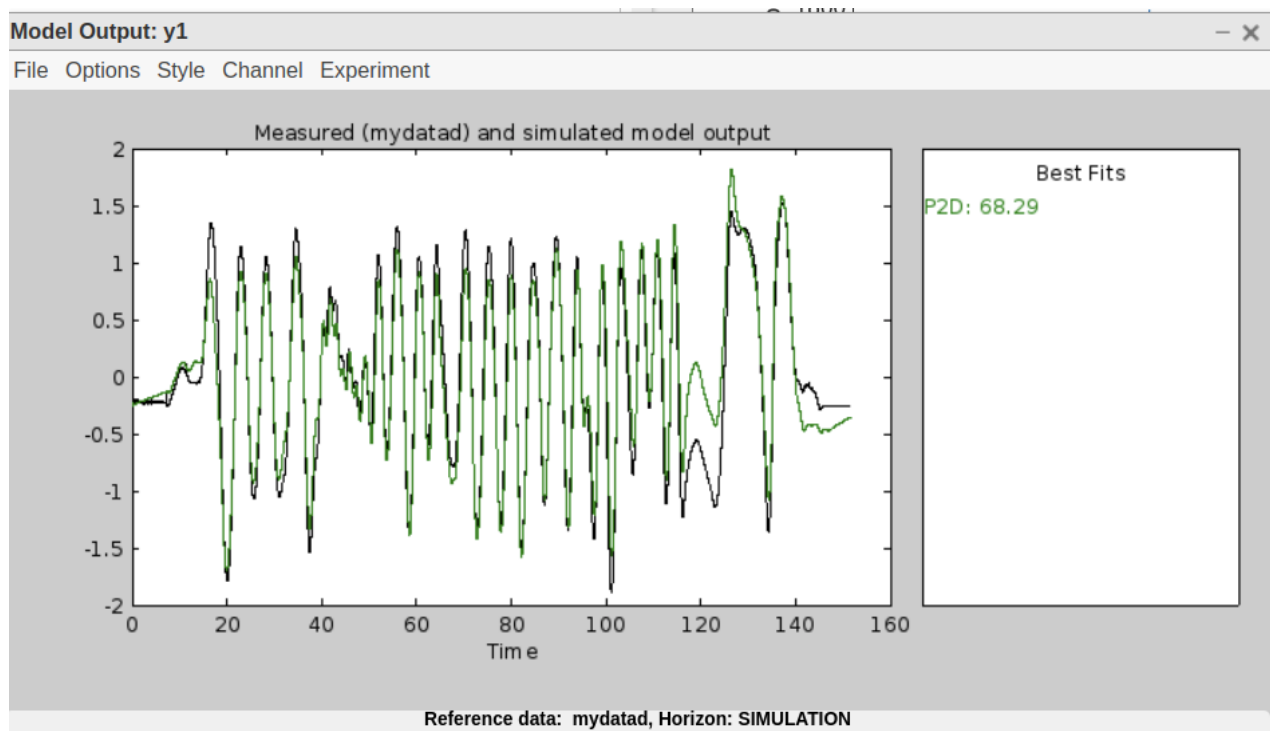


Problem 3

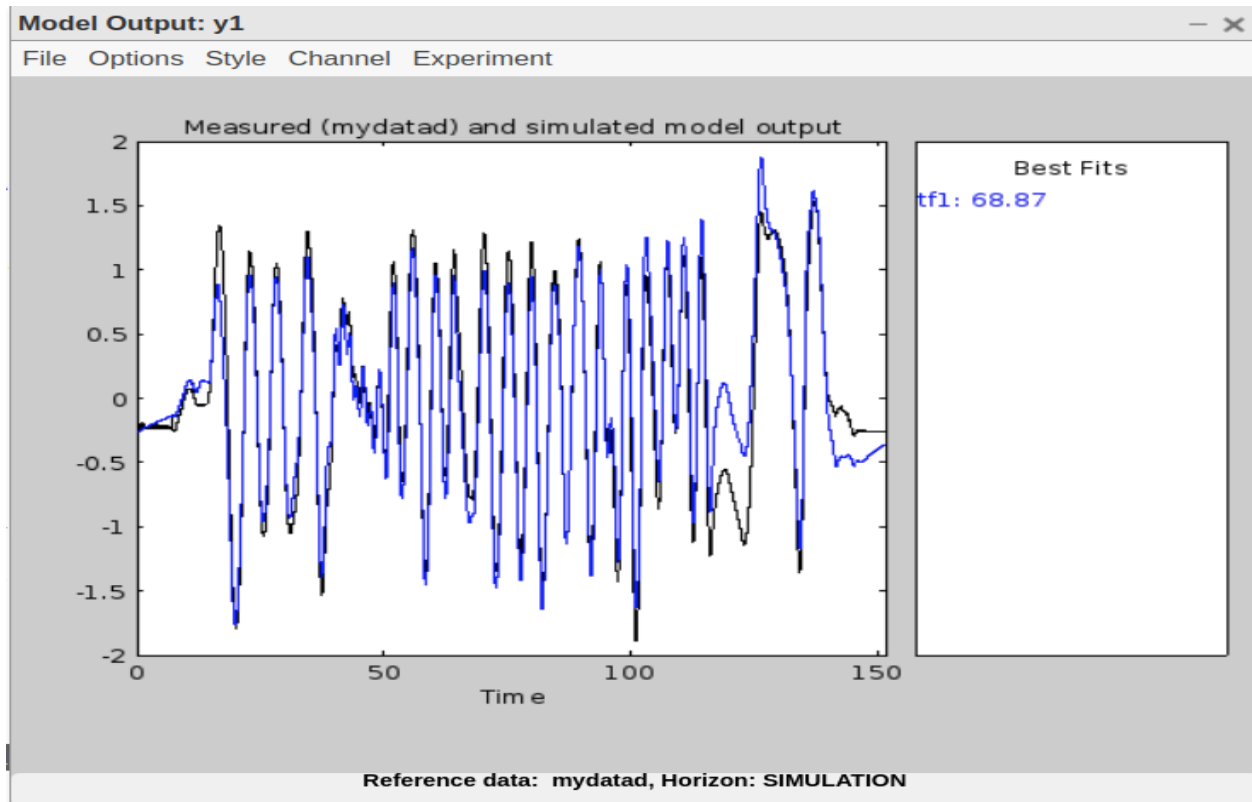
The plot of Lateral Velocity to Lateral Position



The plot of Transfer Function Method with 1 pole and 1 zero with 68.29 fit



The plot of Process Method with 2 pole with 68.87 fit



The plot of Spectral Model

