Review of: "Simulation of Control System for a Half-Car Suspension System for Passenger Vehicle Application by Designing an LQR Controller"

Zhang Lin

Potential competing interests: No potential competing interests to declare.

1. How are the weight matrices Q and R of the LQR controller iteratively selected? Is it possible to achieve equivalent control effects by adjusting PID parameters? The article lacks PID comparison results.
2. Could you elaborate on the characteristics of the road inputs employed in the simulation, including details about a bumpy sinusoidal road and a random road input? Additionally, how representative is the 8Hz input in terms of real-world traffic conditions?
3. Would it be advisable to conduct sensitivity analysis or robustness testing on the controller to assess its performance under uncertain or changing system parameters?