

Figure 7.9: The trajectories of the cars. The relative reference movies at 25 m/s. (a) without “dampers” (i.e. $k_v = 0$), car-accident occurs, and the traffic condition is bad. (b) The traffic condition under bilateral control goes to the equilibrium state very soon.

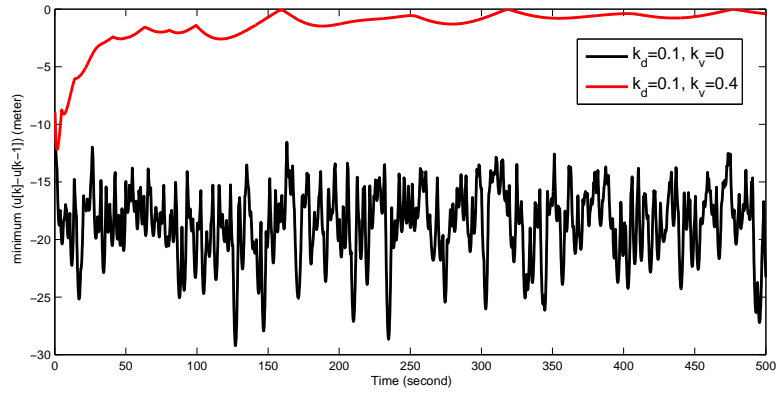


Figure 7.10: The minimum value of $u_k - u_{k-1}$ corresponding to the result in Fig. 7.9. If this minimum value is less than -20 , then car-collision happens.

8 CONCLUSION

Bilateral control can damp traveling waves and thus suppress traffic instabilities [1, 17]. That is, the traffic flow under bilateral control will go to the *equilibrium state* in which all the cars